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Pine Plains Town Center Pedestrian Plan

November 2014



PDCTC
Poughkeepsie-Dutchess County Transportation Council



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Overview

Recognizing the importance that pedestrian and bicycle infrastructure play in building quality communities, the Poughkeepsie-Dutchess County Transportation Council (PDCTC), in partnership with the Dutchess County Planning Department, offered to assist local municipalities with completing sidewalk inventory and improvement plans.

As the designated Metropolitan Planning Organization (MPO) for Dutchess County, the PDCTC is tasked with carrying out a cooperative and comprehensive multimodal transportation planning process for the County, to include the development and promotion of accessible pedestrian walkways and bicycle transportation facilities such as those present in Pine Plains. Upon reviewing candidate locations for MPO-supported sidewalk studies, the PDCTC selected the Towns of Hyde Park and Pine Plains as project communities. The PDCTC completed the Hyde Park Pedestrian Study in 2012.

In accordance with the provisions set forth in 23 U.S.C. 134, this project is funded by federal planning funds from the Federal Highway Administration (FHWA), which are programmed and administered by the PDCTC. No local funds were used to complete this study.

Background

The Town of Pine Plains is a rural community located in northern Dutchess County, near the Columbia County border. Home to almost 2,500 people, the Town supports a low

density development pattern with the exception of the residential and commercial center at the intersection of NYS Routes 82 (South Main Street) and 199 (Church Street), and County Route (CR) 83A (North Main Street) – the locally acknowledged “town center” of Pine Plains. The Town Center is home to a variety of commercial uses that include a bank, grocery store, pharmacy, and restaurants, and public facilities such as Stissing Mountain Middle/High School, Seymour Smith Intermediate Learning Center, and the Community Center/Pine Plains Library.

Centers such as this, typified by the close proximity of different land uses to one another, provide an environment conducive to walking and bicycling and less dependent on automobiles.

The Pine Plains Town Center supports a noticeable amount of pedestrian and bicycle activity that is aided by a sidewalk system that is similar in breadth and composition to other traditional centers and hamlets in the County. Places such as this promote a more sustainable quality of life, by providing travelers and residents with an opportunity to explore their community without having to operate a vehicle to reach multiple destinations.



The intersection of NYS Routes 82 and 199, and CR 83A serves as the focal point for the Pine Plains Town Center.

Demographics

According to data from the 2010 Census, the immediate Town Center (i.e. 1/2 mile radius from the Route 82/199 intersection) is home to over 600 people. This area – bounded by Pioneer Drive-Maple Street to the north, Birch Drive to the west, Factory Lane to the east, and Lake Road-Myrtle Avenue to the South – represents almost a quarter of the Town’s total population. If this analysis area is expanded to include the residential areas around Stissing Lake and to the north near Ryan Road, the population grows to 1,250 people. This means that half of the Town’s population lives within one mile of the Town Center – or in other words, within easy biking distance, and for many, walking distance to the commercial heart of Pine Plains. Figure 1 shows the 2010 population density in the Town.

Scope of Work

The Pine Plains Town Center Pedestrian Plan continues a tradition of transportation-related community planning projects, conducted by the PDCTC and funded through the FHWA, that seek to promote the safe and efficient development, management and operation of the surface transportation system.

For this project, representatives from the Town Board and a locally-designated volunteer Task Force worked with the PDCTC and Planning Department to develop a scope of work to guide the study. Finalized in July 2013, the scope of work identified three major components for the study: 1) inventory

of existing sidewalk conditions; 2) recommendations for future sidewalk and crosswalk improvements (repairs and new facilities); and 3) design alternatives for one or more locations in the study area. The scope also addressed items related to the formation of a Town-supported Pedestrian Task Force, data to be collected during the sidewalk inventory, breadth of study recommendations, composition of final products and number of study-related meetings. As part of the analysis, volunteer Task Force members were charged with examining neighboring municipalities’ codes for examples of best practices and a review of the Town’s own code as related to sidewalks, bike paths and pedestrian-related amenities. The study herein includes a GPS inventory of sidewalk conditions and a final report with prioritized recommendations for improvements.

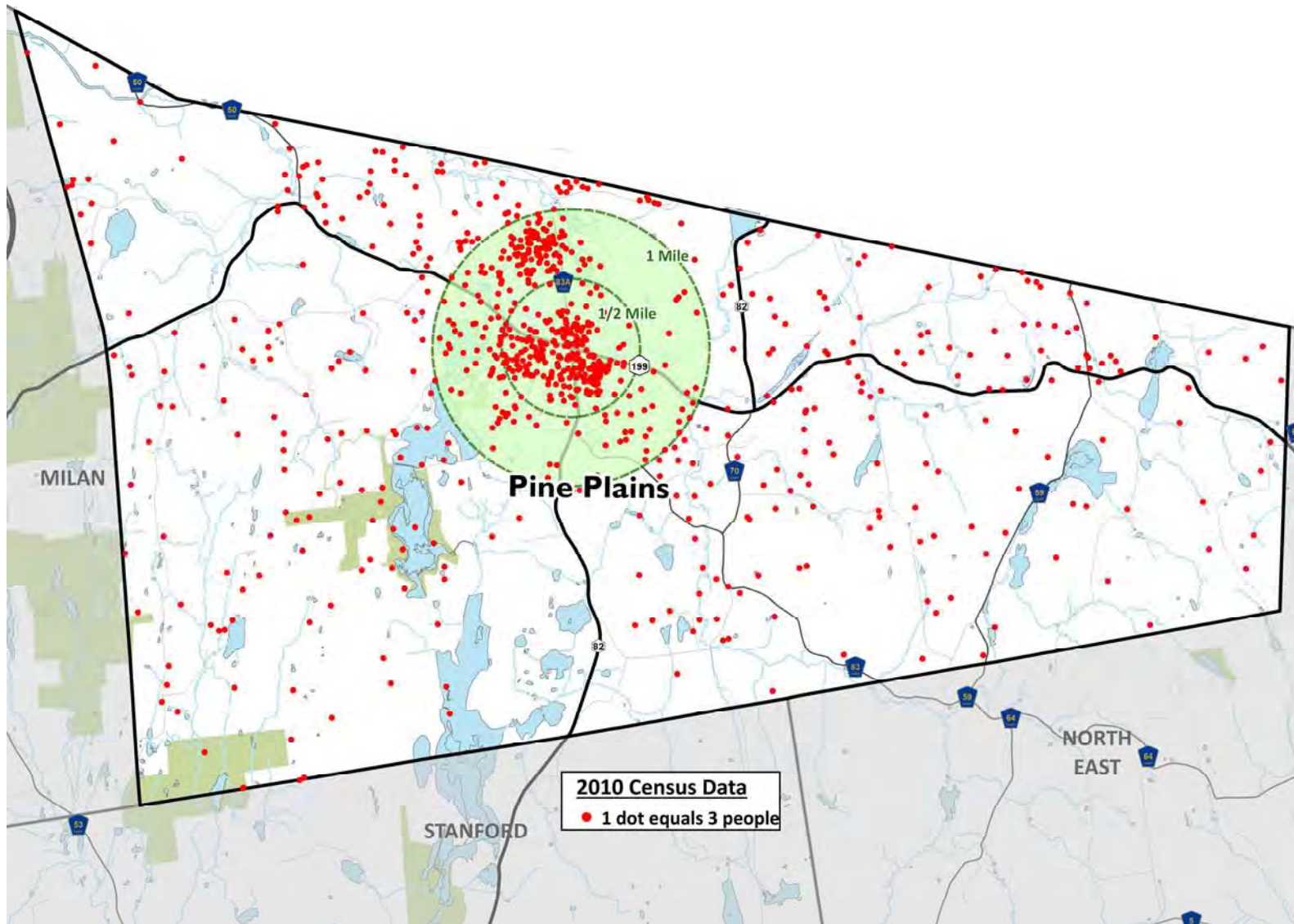
Comprehensive Plan & Zoning Law

The Town’s Comprehensive Plan and Zoning Law provide general guidance on where and how to improve walking and bicycling conditions in Pine Plains.

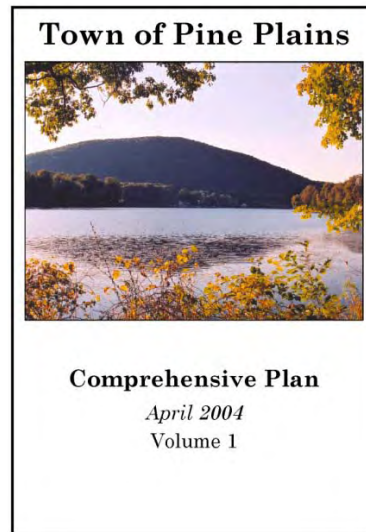
Comprehensive Plan (2004)

The Town acknowledges the importance of centers and non-motorized transportation in its 2004 Comprehensive Plan. The Plan recommends a number of improvements to the Pine Plains hamlet, otherwise known as the Town Center, including the following items:

Figure 1. Town of Pine Plains Population Density



- Requesting that developers install new sidewalks when improving properties.
- Working with NYSDOT to implement traffic calming measures on Route 82 (S. Main Street).
- Developing a recreation plan that considers the needs of all age groups, and evaluate the inclusion of bike paths, hiking, trails, enhanced public access to preserved open lands, and on-going maintenance of Stissing Mountain trails.
- Working with the Hudson River Valley Greenway, NYSDOT, and Dutchess County to develop transportation opportunities such as shared roadways and bike paths.
- Creating a parking plan that addresses current and future parking needs.



The Town has started to implement some of these recommendations, most notably working with the Greenway and Dutchess County to explore ways to promote walking and biking in the Town Center.

Zoning Law (2009)

The Hamlet Design Standards in the Town's 2009 Zoning Law specifies a number of streetscape requirements for properties located within the hamlet (i.e. Town Center). These include the requirement for four-six foot wide sidewalks separated

from the street curb or edge by a three-six foot wide planting strip. Proposed sidewalks are required to transition to existing walkways where required, and shade trees planted within the planting strip. Benches and sitting places are also recommended.

The Zoning Law stipulates that existing pedestrian routes be preserved and enhanced, and encourages the use of the development guidelines in Greenway Guide B2: Walkable Communities. All streets are to have continuous sidewalks on one or both sides of the street, with the sidewalks constructed of concrete, masonry materials, or slate – asphalt sidewalks are prohibited. New sidewalks are to be connected to existing sidewalks and must comply with all applicable requirements of the American with Disabilities Act. Crosswalks are to be provided at all street intersections and be clearly marked with contrasting paving materials at the edges or with striping.

In addition to the requirements for sidewalks and crosswalks, the Zoning Law requires that traffic circulation plans be designed to minimize conflicts between vehicles and pedestrians. Traffic calming features such as curb extensions and bulb-outs, medians, narrow roads, surface textures, and modified intersections with narrowed intersection radii may be used to encourage slower traffic speeds.

The zoning law also calls for the accommodation of bicyclists. Existing bicycle routes through a property (such as a subdivision or park) are to be retained and enhanced. Facilities for bicycle travel may include off-street bicycle paths (generally shared with pedestrians and other non-motorized

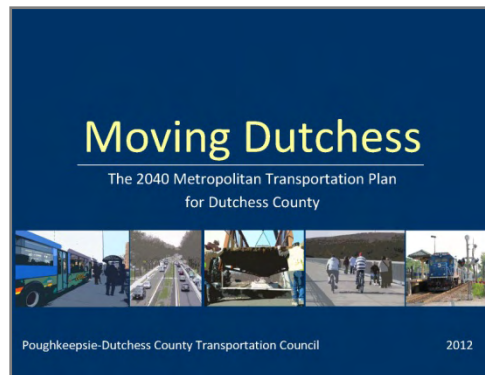
users) and separate, striped, four-foot bicycle lanes on streets. In the Hamlet-Main Street (H-MS) and Hamlet-Business (H-BUS) districts, if a bicycle lane is combined with a lane for parking, the combined width should be 14 feet. Facilities for bicycle travel may include off-street bicycle paths (shared with pedestrians and other non-motorized uses). Linkages to adjacent developments and neighborhoods with pedestrian and bicycle paths are required where feasible. The Zoning Law requires that any Town, County, or State plan for future bicycle pathways be considered during the design review process.

PDCTC Planning Guidance

In addition to local guidance on pedestrian and bicycle issues, the PDCTC has completed two county-wide plans that include sidewalk and trail recommendation for the Pine Plains area.

Moving Dutchess

The PDCTC completed its current long-range metropolitan transportation plan, titled *Moving Dutchess*, in 2011. With a 2040 planning horizon, the transportation plan recommends policies, projects, and studies to address federal, State, and local



transportation priorities for the next 25-30 years. Focus areas include improving transportation safety, promoting mobility, and maintaining the system. The plan also takes a close look at the characteristics and special needs of the County's various communities. With relation to sidewalks and trail planning in Pine Plains, *Moving Dutchess* includes the following recommendations:

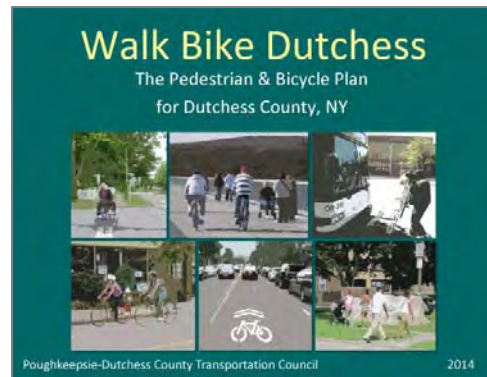
1. Conduct a sidewalk inventory and develop a sidewalk improvement plan for the Town Center (in progress).
2. Repair and improve the sidewalk system in the Town Center.
3. Work with NYSDOT to implement traffic calming techniques on Route 82 (South Main Street.) in the Pine Plains Town Center.
4. Evaluate, designate, and sign Route 82 as a State bicycle route.
5. Establish a linear park from the Roeliff-Jansen through Lafayette Multiple Use Areas for bicycle and walking opportunities, and eventually connect to the Lafayetteville, Wilcox Park, and Stissing Mountain recreational.
6. Construct a rail trail from Pine Plains to Stanford, using existing rail beds.
7. Develop a recreation plan that addresses the inclusion of bike paths, hiking trails, enhanced public access to preserved open lands, and on-going maintenance of Stissing Mountain trails (in progress).

As noted, some of these recommendations are currently underway, including this pedestrian planning effort and the trails plan being developed by the Town's Trails Committee.

Walk Bike Dutchess

In 2014 the PDCTC completed a more detailed Pedestrian-Bicycle Plan, titled *Walk Bike Dutchess*, for Dutchess County. The new plan builds upon federal and State initiatives to promote more sustainable, livable communities, and also fulfills a key short-term recommendation from *Moving Dutchess*. *Walk Bike Dutchess* provides a 20-year vision for improving walking and bicycling conditions in Dutchess County, and aims to address the gap between our goal to make these activities a greater part of everyday life and the current limitations of our built environment, especially in centers such as our cities, villages, and town centers.

Organized in a similar fashion as *Moving Dutchess*, *Walk Bike Dutchess* recommends a variety of short, medium, and long range projects to make walking and bicycling a safer, more convenient part of everyday life in our communities. While *Walk Bike Dutchess* identifies potential funding sources, it does not provide funding for implementation. Given this



limitation, the project ideas are recommendations only and are intended to help municipalities and agencies identify priorities, refine project ideas, and develop future applications for federal, State, and other funding programs. For Pine Plains specifically, the plan includes the following medium-term (next 5-10 years) and long-term (over 10 years) recommendations:

1. Pine Plains Town Center Sidewalks: Improve sidewalks, crosswalks, and other walking facilities in the Pine Plains Town Center, based on the sidewalk assessment under development. This could include extending or improving sidewalks on Route 199, Route 82, and other streets; improving crossings at key intersections; improving pedestrian safety and access to destinations such as the Elementary School and High School; and incorporating amenities such as pedestrian-scale lighting.
2. Pine Plains Trails & Bikeways: Improve trails and develop a network of bicycle facilities in Pine Plains, based on the Town's Trails and Bikeway Concept Plan (under development). This may include on-road facilities as well as rail trails.
3. Stanford – Pine Plains Rail Trail: There are unused railroad lines between Stanford and Pine Plains that could be acquired and converted to a shared-use trail, as recommended in *Moving Dutchess*. This would be a major project that would require substantial funding, so the *Town would first* need to explore the feasibility of constructing the rail trail using existing railroad right of ways (about 9 miles).

Sidewalk Inventory

The first component of the study involved an inventory and assessment of existing sidewalk conditions, which would be used to inform subsequent recommendations and help establish priorities for needed improvements. The inventory gathered data on a variety of attributes related to sidewalks and associated pedestrian features. Three attributes were of particular importance: overall sidewalk condition, type of material, and specific issues related to sidewalks. Though, the inventory also collected data on crosswalks, curb ramp conditions, buffer (median) widths, and handicap accessibility. Completed in June 2013, the inventory included a limited catalog of geo-coded photos to show and locate sidewalk issues identified during the inventory.

Sidewalk Conditions

The inventory used three general condition ratings (Excellent/Good, Fair, and Poor/Unusable) to measure the overall condition of existing sidewalks in the Town Center:

1. Excellent/Good: No maintenance required, or the number of issues is unlikely to hinder mobility of the average pedestrian. Sidewalk free from significant cracking, buckling, gravel surfaces or other debris which would impede pedestrian traffic.
2. Fair: Uneven and distressed surface that hinder mobility of the average pedestrian. Contains surface cracks, negligible vegetation overgrowth or debris.
3. Poor/Unusable: Impassable to mobility-impaired pedestrians; hinders mobility of average pedestrian. Deep cracking or buckling, significant vegetative overgrowth and/or debris such that pedestrian travel would be impeded.

The inventory identified a total of 2.9 miles or 15,750 linear feet of existing sidewalks in the Pine Plains Town Center. Of this total, 85 percent (13,384 linear feet) was rated as either excellent or good, with 13 percent (over 2,000 linear feet) rated as fair, and the remainder rated poor/unusable. Overall, the sidewalks along Routes 82/199, and CR 83A are in good condition, whereas some of the side streets (e.g. Academy Street) contain the majority of poor or unusable sidewalks. Figure 1 shows the results of the condition inventory.



This sidewalk on Academy Street is rated in fair condition.



This sidewalk on Route 82 is in excellent condition.

Table 1. Sidewalk Conditions

Condition	Length (feet)	Length (miles)	Percent
Excellent/Good	13,384	2.44	85%
Fair	2,061	0.38	13%
Poor/Unusable	305	0.06	2%
Total	15,750	2.87	

Since a high percentage of the sidewalks are in good or excellent condition, reconstructing the relatively small amount of sidewalks in poor/unusable condition may be a lesser priority than building new pedestrian connections – although maintenance of the entire system is still needed to preserve excellent/good condition rates and correct isolated safety hazards.

In addition to rating general sidewalk conditions, the project team rated their compliance with the following Americans with Disabilities Act (ADA) criteria:

- Sidewalk Width: Wide enough for a wheelchair to easily travel.
- Surface: Relatively smooth so a wheelchair/walker can easily travel, yet slip-resistant.
- Slope: Not too steep up or down for a wheelchair.
- Openings/Gaps: No large grate openings or gaps in which a cane tip or wheelchair wheel would get stuck.
- Cross-Slope: Relatively level surface across the sidewalk.

- Warning strips: Detectable warnings/truncated domes at transition points between sidewalk and street (e.g. at bottom of curb ramps or depressed corners, borders of medians and islands).
- Obstructions: No objects project into/over the sidewalk that a blind person with a cane would not detect and which would impede his/her progress and safety (e.g. poles, signs, etc.).
- Alternate Routes: In construction zones, an alternate accessible route is provided, if needed.



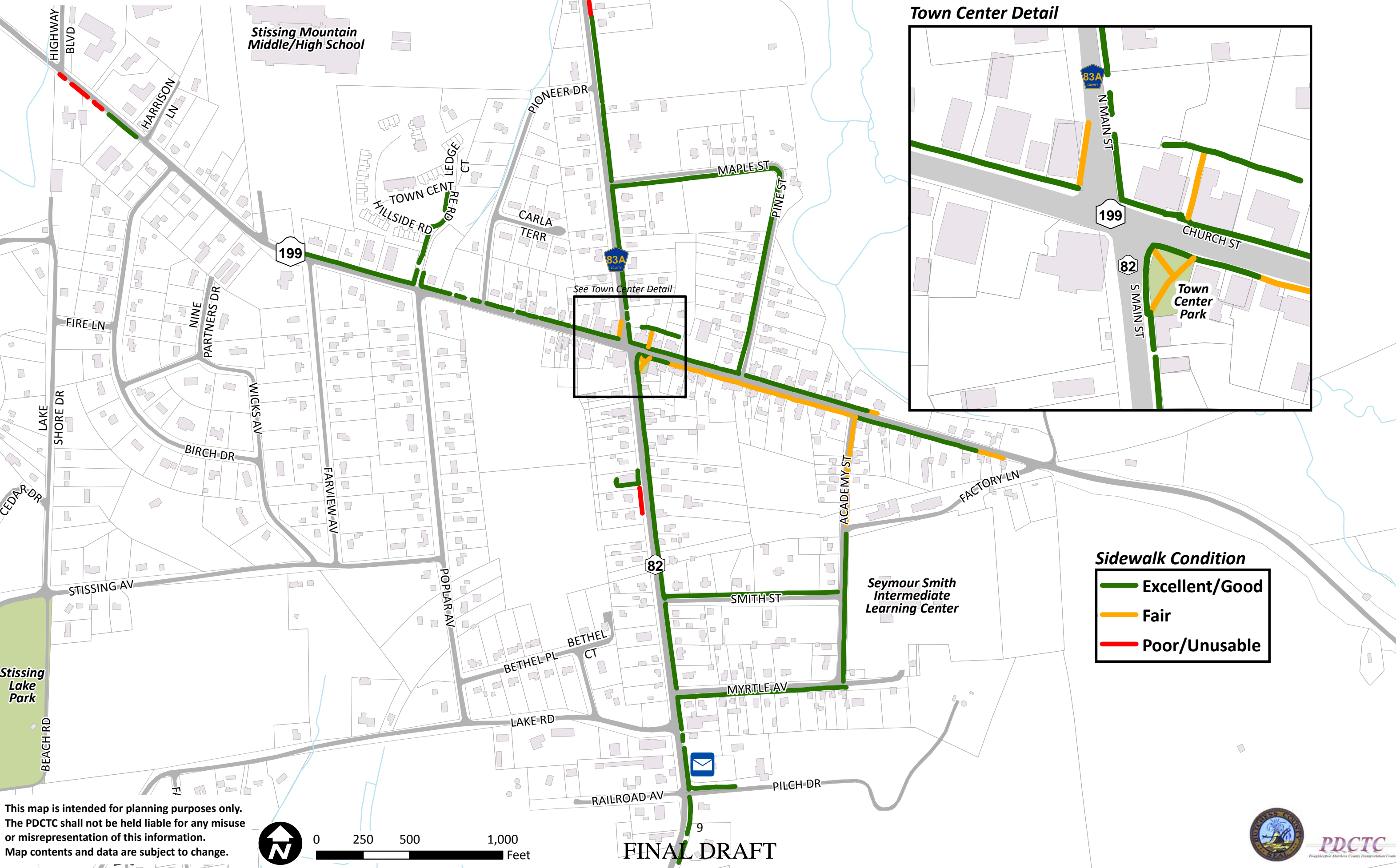
ADA compliant ramps warn disabled persons of the transition from sidewalk to street.

Sidewalk conditions for disabled persons vary throughout the Town Center. In some cases, sidewalks that were rated as good or excellent overall were downgraded to poor or unusable due to issues that would prevent a physically-challenged person from using the sidewalk. In general, when viewed from the ADA perspective, 83 percent of the sidewalks were rated as good or excellent, while 13 percent were in poor condition and four percent were unusable. For this evaluation, sidewalks that had panel gaps greater than one inch, but less than three inches, were typically categorized as

Pine Plains Town Center Sidewalk Conditions

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Figure 2



This map is intended for planning purposes only. The PDCTC shall not be held liable for any misuse or misrepresentation of this information. Map contents and data are subject to change.

poor. In some cases, the usable sidewalk width was so narrow that a wheelchair would not be able to get through the gap.

Table 2. ADA Sidewalk Conditions

Condition	Length (feet)	Length (miles)	Percent
Excellent/Good	12,998	2.37	83%
Fair	2,089	0.38	13%
Poor/Unusable	663	0.12	4%
Total	15,750	2.87	

Sidewalk Materials

The inventory also identified the types of materials used to construct existing sidewalks in the Town. Three material types were captured: concrete, asphalt, and other (e.g. gravel). The inventory indicated that concrete was the most prevalent type of construction material, making up 84 percent (15,467 linear feet) of all existing sidewalks. This was followed by asphalt, which made up 10 percent (only 72 linear feet), with other materials making up only two percent (over 200 linear feet). Table 3 shows the results of the material inventory.

Table 3. Sidewalk Materials

Material	Length (feet)	Length (miles)	Percent
Concrete	15,467	2.82	98%
Other	211	0.04	1%
Asphalt	72	0.01	<1%
Total	15,750	2.87	

The prevalence of concrete sidewalks in the Town Center reflects the general policy of NYSDOT to use concrete when constructing sidewalks. Concrete is more durable than other sidewalk materials and is less likely to experience issues related to cracking or lifting, which can plague other materials such as bluestone or brick, especially when used near street trees. Although concrete sidewalks cost more, these costs are usually offset by reduced maintenance costs over time. Concrete can also be imprinted or colored to complement local aesthetics.



The majority of sidewalks in Pine Plains use concrete, which is a durable and long-lasting material.

Sidewalk Issues

In addition to general conditions, the inventory identified specific issues related to the sidewalks in the Town Center. These issues were grouped into six categories: lifted, cracked, obstruction, removed, clearance, and other:

1. Lifted: Pieces of sidewalk lifted up with uneven surfacing.
2. Broken/Cracked: Cracking or broken pieces in the sidewalk.

3. Obstruction/Worn: Utilities, signs, and other objects located in the sidewalk itself, limiting walkability (permanent) or sidewalk surface worn to an unsafe level.
4. Removed/Missing: Sidewalk sections have been removed or are missing.
5. Clearance: Insufficient room to walk due to branches, bushes, trash, or parked cars (temporary).
6. Other: Any issue not captured above.



Example of vegetation encroaching upon the pedestrian right of way.

Locating these issues allows us to identify specific areas in need of repair or issues/activities that need to be addressed. They also help us identify low cost improvements that can enhance pedestrian movement, such as removing tree branches or patching small sidewalk sections. They also capture issues on those sidewalks that may be rated good or

excellent, but have isolated sections in need of repair. For example, portions of Routes 82 (S. Main Street) and 199 (Church Street), although in good/excellent condition overall, contain sections with multiple issues: most notably in and around where the two highways intersect and on Route 199 (Church Street) west of the center.

A total of 147 specific concerns were identified during the inventory, with sidewalk lifting or broken/cracked sidewalks making up 79 percent of the issues. There were also isolated issues associated with sidewalk obstructions and missing sections. Table 4 shows the results of the issues inventory, while Figure 2 shows their location. Many of these of the issues were concentrated around the Route 82/199 intersection, just south of the Community Center/Pine Plains Library on Route 82 (South Main Street), and on Academy Street east of the center. The inventory indicated an issue rate of one issue per 107 feet of sidewalk, which is comparable to rates found in the Village of Rhinebeck (one per 121 feet) and Hyde Park Town Center (one per 122 feet).

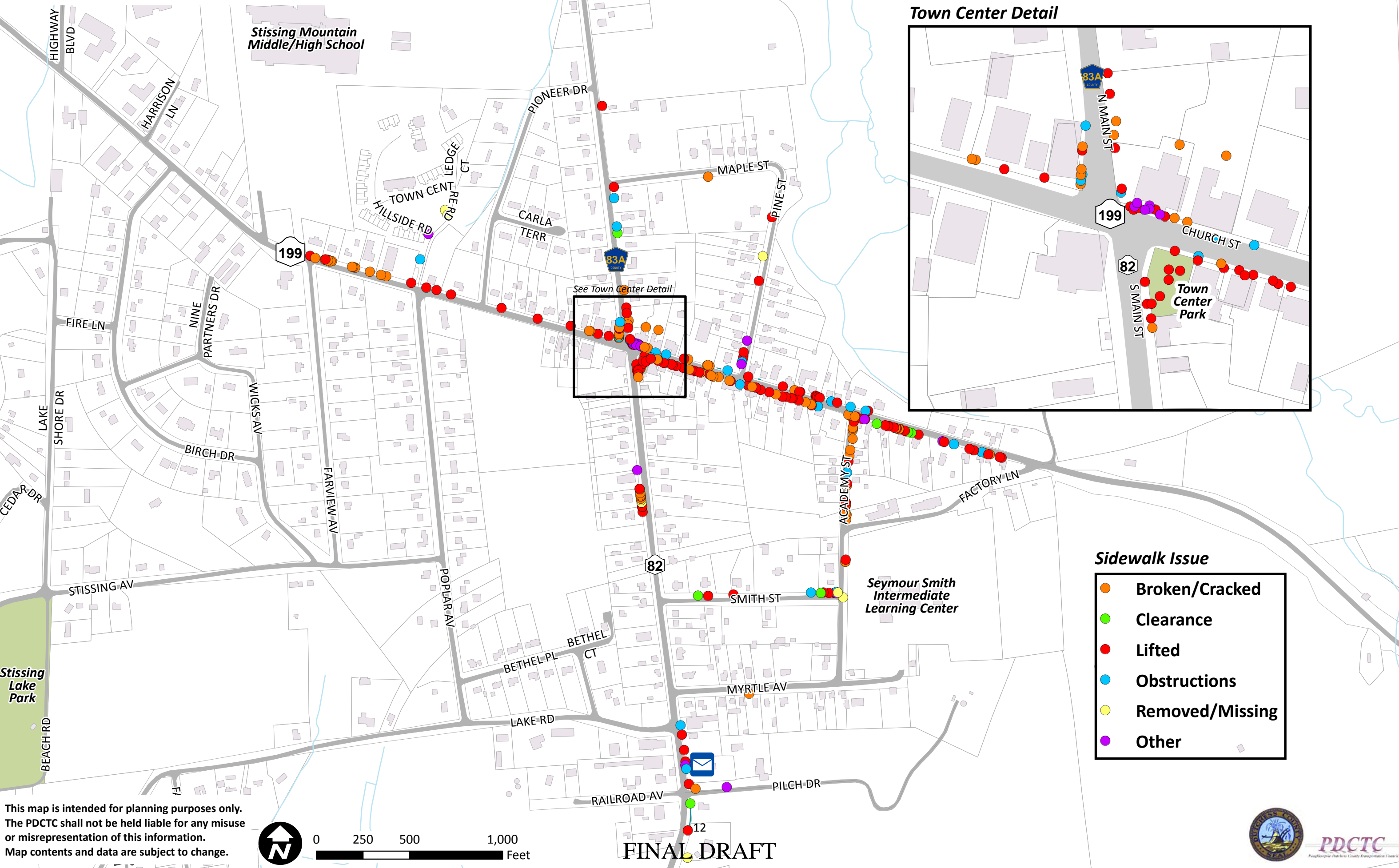
Table 4. Sidewalk Issues

Issue	Count	Percent
Lifted	62	42%
Broken/Cracked	54	37%
Obstruction	14	10%
Removed/Missing	7	5%
Other	6	4%
Clearance	4	3%
Total	147	

Pine Plains Town Center Sidewalk Issues

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Figure 3





Most of the lifting issues identified during the sidewalk inventory occurred at concrete panel joints.

Field Observations

In addition to geo-coding sidewalk conditions and issues, PDCTC and Planning Department staff made the following observations during their field work:

Sidewalk Conditions

- Excellent and poor/unusable sidewalks were generally easy to distinguish.
- It was difficult at times to differentiate between a fair or good sidewalk.
- Pronounced lack of sidewalks in the southwestern section of the Town Center, west of Route 82 (S. Main Street) and south of Route 199 (Church Street).
- Most sections of Routes 82 (South Main Street) and 199 (Church Street), CR 83A (North Main Street), and side streets such as Maple and Smith Streets, and Myrtle Avenue have sidewalks on only one side of the road.

- Isolated cases of sidewalk encroachment or removal by property owners.

Sidewalk Materials

- Most new sidewalks made of concrete with similar construction techniques.
- Concrete sidewalks tended to have fewer issues.

Sidewalk Issues

- Sections categorized as poor or unusable usually had too many maintenance issues to single-out.
- Lack of crosswalks at key locations.
- Street ramps at intersections often in poor or unusable condition.

Project Survey

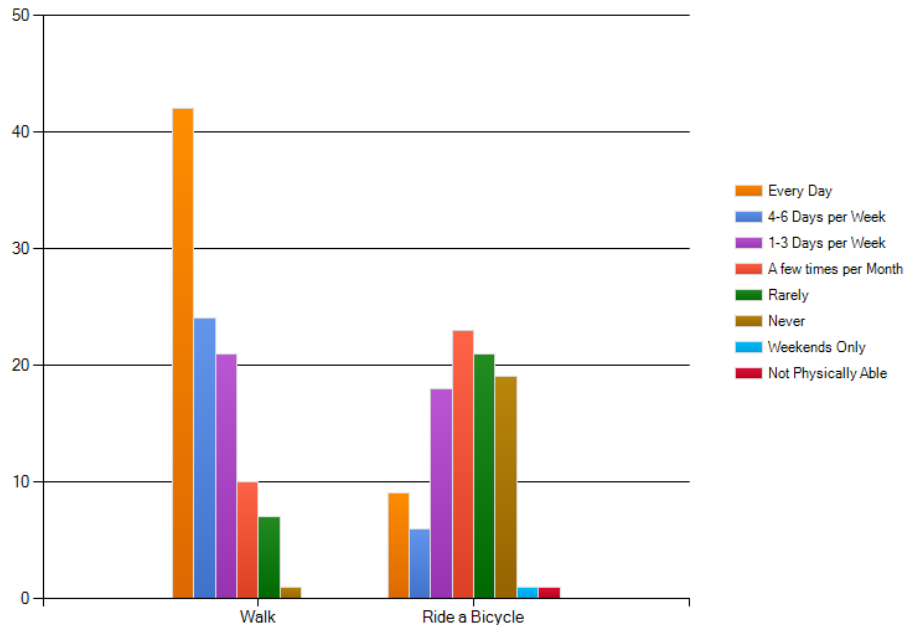
The Town's *Walks Initiative Task Force* and *Trails & Bikeway Committee*, in conjunction with the County Planning Department, issued a survey to gather feedback on sidewalk and trail issues in Pine Plains. The survey included general questions about sidewalk conditions in the Town Center and trail issues throughout the Town. Respondents were also encouraged to provide written comments about related topics. In addition to an online version, paper copies of the survey were made available locally. By its conclusion in July 2014, the survey had garnered almost 110 responses, which were used to refine the improvement strategy and help prioritize potential projects. Highlights from the survey include:

- 83 percent of respondents walked at least 1-3 days per week or more; this included 40 percent who walked every day. For those who bicycled, 41 percent rode at least a few times a month, including 33 percent riding at least 1-3 days per week or more.
- Respondents identified exercise and enjoying the community as the top two reasons for walking and bicycling in Pine Plains.
- Over half of those who walked did so to run errands or shop.
- Only 11 percent of respondents cited travel to/from school as one of the reasons they walked.
- A vast majority of walkers, over 88 percent, cited the health benefits of walking as an important consideration when choosing to do so.
- When walking, the majority of respondents indicated that they walked on a sidewalk, road, or road shoulder.
- When bicycling, the majority rode on the road shoulder or road itself, with a small number using trails and even sidewalks.
- The majority of walkers indicated that repairing or constructing sidewalks and improving trail connections were the most important in encouraging them to walk more. Conversely, many walkers did not feel improved pedestrian lighting, more education, or even slower traffic would encourage them to walk more.
- Respondents cited inadequate road shoulders, sidewalks, and paths as the main reason why they chose not to walk or bicycle in the Town Center. Bicyclists also noted a lack of safe bicycle parking as a deterrent to bicycling in the Town Center.
- With regard to funding future pedestrian improvements, the vast majority of respondents preferred that the Town pursue federal, State, and regional grants to fund projects, followed by the establishment of a community fund to accept donations.
- Almost 13 percent of respondents did not favor additional funding for pedestrian improvements.
- Point of sale requirements (i.e. repairing a sidewalk prior to selling a property) were the least favored funding option (11 percent).
- 95 percent of respondents had access to a vehicle.
- Many trail users noted that better signs and trail markings would encourage them to use Town trails more often.
- Many respondents noted that Stissing Lake Park, Stissing Avenue/Lake Road, and Stissing Mountain should be more accessible by walking. These locations were followed by CR 83A (North Main Street), including Evergreen Cemetery, and the area north of the High School.
- For those who hiked, Stissing Mountain and Thompson's Pond Trail were the most popular hiking locations.



Many survey respondents cited the need to improve pedestrian and bicycle access to Stissing Lake Park.

On average, how often do you walk and/or ride a bicycle? (Select one response for each.)



Based on the responses to Question 1 above, the survey indicated that many respondents walked or bicycled at least once a week, with some doing so on a daily basis.

A number of questions allowed written responses, some of which are highlighted below:

- A number of respondents thought that the Town Center already had an adequate number of sidewalks, and that walking and bicycling were not issues.
- Walkers identified the following locations as the most difficult for walking: Route 199 (Church Street), CR 83A (North Main Street), Birch Drive, Factory Lane, Jackson Road, Lake Road, Pilch Drive, and Poplar Avenue.

- Respondents highlighted a number of locations that could be more bicycle friendly to include Routes 82 and 199, Lake Road, and CR 83A (North Main Street).
- Many bicyclists noted that poor road shoulders, regardless of jurisdiction, made it difficult to bike in and around Pine Plains.

The survey results reinforced a number of items about the nature of walking and biking in Pine Plains. Foremost was the idea that people value these activities, with many making them an important part of their daily lives.

Town Workshop

The *Walks Initiative Task Force* and *Trails & Bikeway Committee* also held a public workshop on June 25, 2014 at Town Hall to solicit additional feedback on walking and bicycling issues in the Town. The workshop included a presentation by the PDCTC on data gathered during the sidewalk inventory and preliminary results from the survey. The workshop also allowed attendees to document their thoughts about sidewalk and trail improvements by annotating large maps of the Town and Town Center. The following sidewalk and trail improvements were identified during the workshop:

New Sidewalks

- From the intersection of Jackson Road/Woodside Street, continuing in a southerly direction on the west side of the High School to connect with Route 199

(Church Street). Note: a sidewalk does not currently exist on this portion of Route 199 (Church Street).

- From the north-side of Route 199 (Church Street) into the High School property.
- On the east side of CR83A (North Main Street), starting at the end of the existing sidewalk that ends just south of Evergreen Cemetery, north to Jackson Road.
- A sidewalk connection from the rear (north-side) of the High School to the front (south-side), through the High School property to Route 199 (Church Street).
- From Nine Partners Road in a northerly direction, connecting to Route 199 (Church Street).
- At a point beginning on the church property on the south-side of Route 199 (Church Street), continuing south to Bethel Place.
- On the south-side of Route 199 (Church Street), west of the Town Center, from the existing sidewalk terminus west of Factory Lane to the Factory Lane intersection.
- A new sidewalk or trail to connect the southwest corner of Stissing Lake Park at Beach Road to the intersection of Lake and Fabrello Lane.
- On the east-side of Route 82 (South Main Street) to Lia's Mountain View Restaurant.
- On the west-side Route 82 (South Main Street), at the sidewalk terminus near Stewart's, south to CR83.
- Extend the sidewalk on the north-side of Route 199 (Church Street) from Fairview Avenue to Birch Drive.
- Extend sidewalk beyond the armory (American Legion) in a northerly direction.

Other Pedestrian Improvements

- Improve the shoulders on the north-side of Route 199 (Church Street) to the east of the High School driveway, continuing west to Lake Road.
- Improved the shoulders on Stissing Avenue.
- Repair the drainage issue at the crosswalk on CR83A (North Main Street) in front of the Pine Plains Pharmacy.
- Install a crosswalk between the Pine Plains Pharmacy and Stissing House.
- Repair the twin brick inlay walkways that connects the northern sidewalk along Route 199 (Church Street) to the parking lot in the rear of the office building at 2977 Church St. (Route 199).
- Upgrade the existing crosswalk that connects Seymour Smith Elementary School to Smith Street, and repair drainage issues at the intersection.
- Raise the sidewalk and crosswalk on Pilch Drive near the Post Office.

Trails

- Widen/improve shoulders on Routes 82 and 199, CR 83A (North Main Street), Lake Road, and Stissing Avenue.
- Add a northerly trail or sidewalk connection from the north-side of Route 199 at Highway Blvd, connecting to Ryan Road and the new distillery.
- At the southeastern corner of the fishing hole at Mud Pond, add a loop trail on the 8.9 acre parcel of Town-

owned land to take advantage of the scenic qualities of Twin Island and provide access to Twin Island Lake.

- Link Bethel to Pine Plains via rail trail.
- Complete a trail loop, using a northwesterly direction, linking Buttercup Sanctuary to the NYSDEC/Stissing Mountain State Multiple Use Area, Wilcox Memorial Park, and the Lafayetteville State Multiple Use Area.
- Add trail from existing Thompson Pond northeastern terminus with Lake Road, across Lake Road to Stissing Pond, and then in a southerly direction to pick up the trail to the Fire Tower.
- Link Mt. Ross via abandoned Rhinebeck/Connecticut rail line to the Roeliff Jansen Kill State Multiple Use Area in the Town of Milan.
- Link Buttercup Sanctuary to the Pine Plains Town Center.
- Access to Ryan Road and new distillery via the abandoned Poughkeepsie/Eastern rail bed.
- Install a kayak launch behind Hammertown Barn, and south of Bethel near the rail line and Carpenter Hill Road.



The June 25, 2014 public workshop relied on the active participation of residents to identify sidewalk and trail improvements in Pine Plains.

The Pine Plains Pedestrian Plan seeks to develop a sidewalk improvement strategy that will assist the Town in setting priorities for future sidewalk infrastructure investments and better enable it to seek funding to promote walking and biking in Pine Plains. PDCTC and Planning Department staff developed the strategy through a study of existing conditions, feedback from the Town's *Walks Initiative Task Force*, and comments from the survey and workshop. The sidewalk improvement strategy has four major objectives:

1. Repair sidewalks and crosswalks in poor or unusable condition within the Pine Plains Town Center.
2. Improve pedestrian access to public facilities such as Stissing Middle/High School, Seymour Smith Intermediate Learning Center, and Community Center
3. Improve pedestrian/bicycle safety and access to Stissing Lake Park.
4. Promote economic development through better access to local businesses, including improvements to the Route 82/199 (Main/Church Street) intersection to create a signature focal point for the Town Center.

Given the cost and complexities associated with achieving these objectives, the PDCTC and Planning Department recommend a "build when ready" improvement strategy that provides the Town with some flexibility to carry out each recommendation. Under this approach, each recommendation would be implemented as local conditions and funding opportunities permit. This approach will allow the Town to capitalize on various funding programs, changes in property

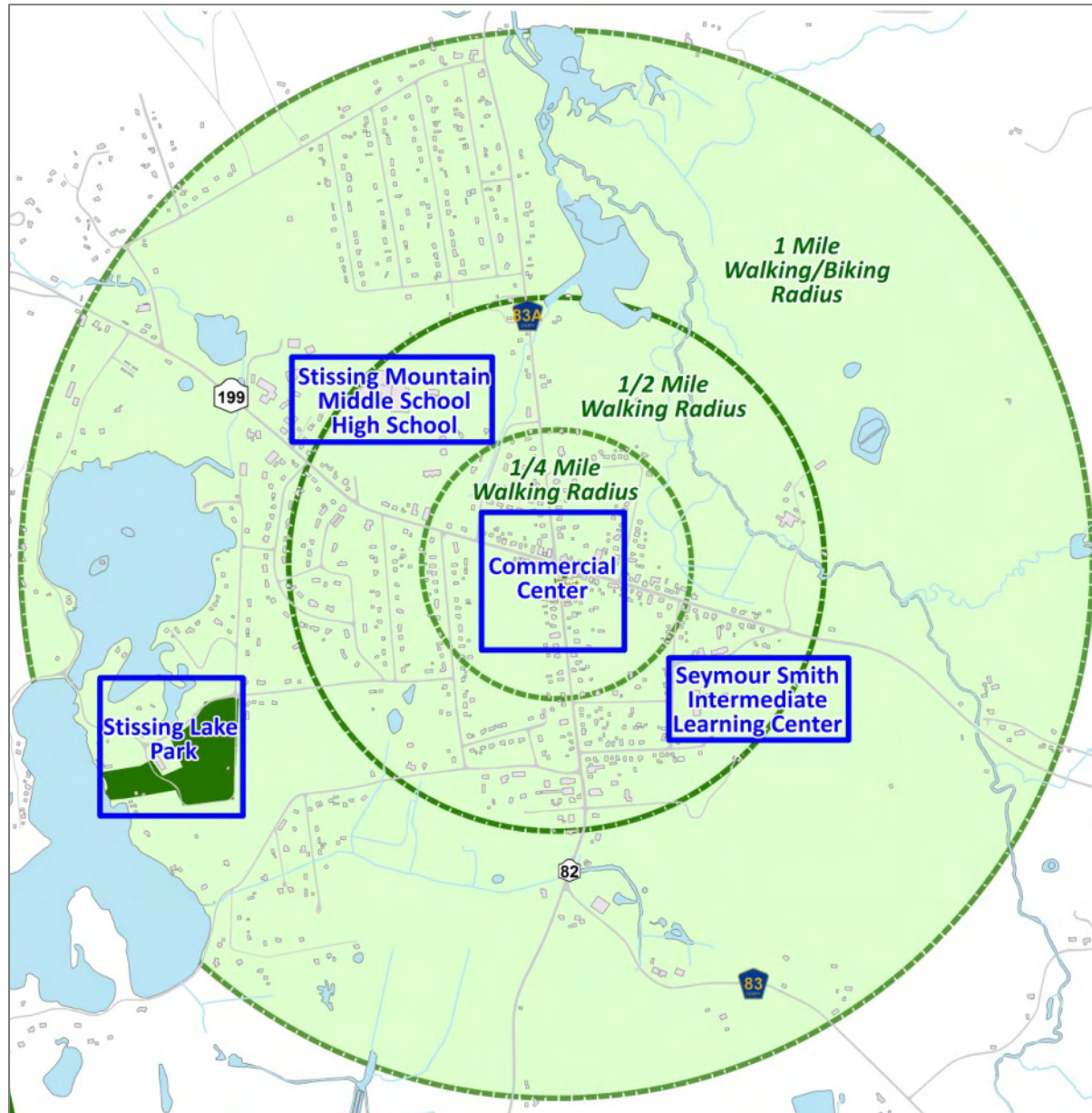
ownership, or redevelopment opportunities that may be conducive to implementing one or more recommendations.

Within the context of this “build when ready” strategy, we have organized the recommendations into three priority levels (Phase 1, 2, and 3) that address each of the study’s four objectives. In general, the priority levels relate to the complexity and cost of each recommendation, with the most viable project proposals listed as Phase 1 work items, whereas the more ambitious and costly items are listed as Phase 2 and 3 recommendations. The study purposely does not specify a timeframe for accomplishing these recommendations, since implementation will rely on the availability of funding and competing priorities. However, Phase 1 work items should be viewed as short-term priorities, given their viability, and in most cases, their proximity to the Town Center. The Phase 2 and 3 work items focus more on building new connections within ½ mile and one mile from the Town Center. Figure 4 shows the approximate walking and bicycling distances from the Town Center.

Please note that many of the suggested improvements relate to the use of warning signs; therefore, where possible, the sign number from the 2009 Manual on Uniform Traffic Control Devices (MUTCD) is included with the sign name.

Table 5 provides a listing of the recommendations, while Figure 5 shows their locations.

Figure 4. Walking and Bicycling Distances from Pine Plains Town Center



Phase 1 Priority Work Items

1-1. Town Center Pedestrian Improvements (Phase 1)

Sidewalks

The Pine Plains Town Center should be supported by a safe and contiguous sidewalk system that is in excellent or good condition. To achieve this goal, sidewalks in poor or unusable condition on Academy Street and Route 199 (Church Street) should be repaired, and if funding becomes available, a new sidewalk installed on CR 83A (North Main Street). These sidewalk improvements should be complemented by applicable crosswalk improvements at intersections and mid-block locations. The following actions are recommended as first priority work items:

Sidewalk Repairs

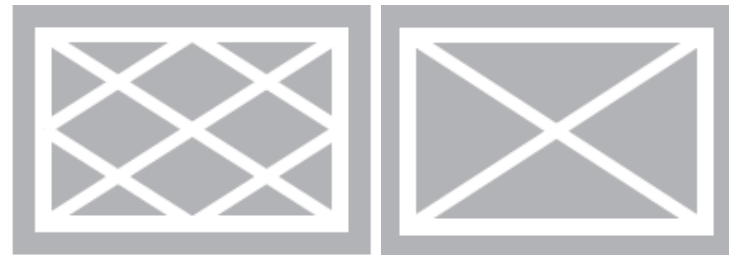
- The Town should consider rehabilitating the Academy/Smith Street intersection near Seymour Smith Intermediate Learning Center. This intersection experiences a high level of vehicle and parking activity that make it difficult for students, family, and staff to walk to school safely. At a minimum, the improvements should address the frequent pooling of water on the shoulders of Smith Street and poor pavement and sidewalks conditions. The crosswalk should also be restriped across Academy Street to the existing sidewalk in front of the School (approx. 100 feet) – however, the Town may wish to use a

“crosswalk box” to account for the offsetting sidewalks across Academy Street and to reinforce the pedestrian right-of-way. Regardless of the crosswalk type used, the approaches to the intersection should be supplemented by high visibility pedestrian warning signs. Lastly, the Town should ensure that the eastern section of sidewalk on Smith Street is clear of any obstructions, while also increasing enforcement of area parking restrictions to better protect pedestrians.



The Town should ensure that this section of sidewalk on Smith Street is clear of debris, while road improvements should be made to prevent road ponding and improve pedestrian safety.

The Town might consider the use of a crosswalk box at the Academy/Smith Street intersection, in front of the Seymour Smith school. The MUTCD provides two options, shown below, that would be appropriate for this area.



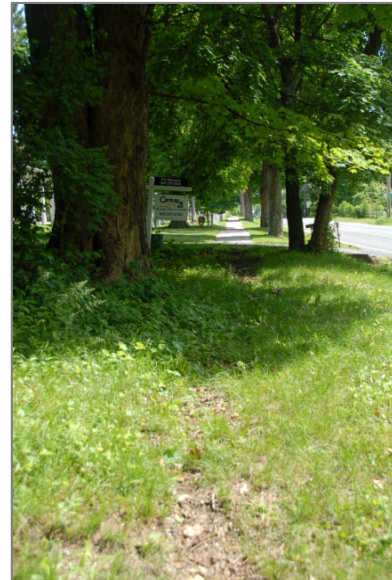


The intersection in front of Seymour Smith School would benefit from pedestrian improvements.

- Repair some of the lifted sections on the east-side sidewalk of Academy Street from Route 199 (Church Street) south to Factory Lane. Sections of this sidewalk were rated in fair condition during the sidewalk inventory (approx. 550 feet).
- Repair sections of the south-side sidewalk on Route 199 (Church Street), just east of the Route 82 (Main Street) intersection, to Academy Street (approx. 1,000 feet). This section was rated in fair condition during the sidewalk inventory.
- Repair the short section of damaged sidewalk on the east-side of CR 83A (North Main Street) by Evergreen Cemetery (70 North Main St.) (approx. 65 feet). This could be completed in conjunction a possible new sidewalk extension further north.
- Repair the short section of unusable sidewalk on the far-western part of Route 199 (Church Street) near Factory Lane (approx. 175 feet).
- Improve and maintain the short pedestrian connection behind the Brush House to Peck's Market, so that it provides a safe connection from the Town parking lot.

New Sidewalk (Phase 1)

- Construct a new sidewalk on the east-side of CR 83A (North Main Street) from Evergreen Cemetery to Jackson Road (approx. 1,000 feet). This would provide a safe pedestrian connection to the Town Center for the residential areas to the north, while also serving as a good pilot project for the Town, since the number of parcels affected is relatively low (four total) and it would only require coordination with one agency: the Dutchess County Department of Public Works. If pursued, a crosswalk should also be added across CR 83A (North Main Street) from Jackson Street to the new sidewalk, along with pedestrian warning signs.



The section of unusable sidewalk on CR83A (North Main Street) (left photo) should be repaired in junction with a new sidewalk extension along Evergreen Cemetery (right photo) to Jackson Road.

Pedestrian Crosswalks

Clearly marked crosswalks serve an important role in promoting a safe walking environment, alerting drivers to the possibility of pedestrians and also directing pedestrians to a safe place to cross a road. Crosswalks provide the connections needed between sidewalks to create a contiguous pedestrian system. Accordingly, the Town Center would benefit from additional crosswalks at key intersections along Route 82 (South Main Street) and 199 (Church Street), CR 83A (North Main Street), and local side streets. Besides improving pedestrian safety, crosswalks would also improve access to commercial establishments within the Town Center, fostering economic growth.

As part of Phase 1, we recommend that new crosswalks be placed on all streets that intersect with existing sidewalks. This includes all side streets that intersect with those sections of Route 82 (South Main Street) and 199 (Church Street), and CR 83A (North Main Street) that have existing sidewalks, and all local streets and large driveways that intersect sidewalks. These new crosswalks should be placed across the width of each side street, so that they connect to adjacent sidewalks. We recommend crosswalks at the following locations:

Crosswalks (Phase 1)

- Town Center Road at Route 199 (Church Street)
- Pioneer Drive at Route 199 (Church Street)
- Peck's Market (both driveways) at Route 199 (Church Street)

- Pine Street at Route 199 (Church Street)
- Academy Street at Route 199 (Church Street), to include two crosswalks across Route 199 connecting the sidewalks on the north and south sides of Route 199
- Pilch Drive at Route 82 (South Main Street)
- Maple Street at CR 83A (North Main Street)
- Evergreen Cemetery driveways at CR 83A (North Main Street)
- Factory Lane at Academy Street
- Northern driveway of the Seymour Smith Intermediate Learning Center at Academy Street.
- Myrtle Avenue (i.e. southern driveway of the Learning Center) at Academy Street

The new crosswalks should be supplemented by the installation of appropriate pedestrian regulatory and warning signs (such as those shown below) and advance pavement stop lines. Stop lines should be located at least four feet from stop-controlled crosswalks, while advance yield lines should be installed 20 to 50 feet from crosswalks at uncontrolled intersections.



Examples of various pedestrian warning signs, including an advance Pedestrian crossing sign on the left (W11-2) and two types of Pedestrian Crossing signs on the right (R1-5a and R-5c).

In addition to traditional crosswalks, mid-block crosswalks at high traffic areas can provide an additional measure of pedestrian safety and connectivity. We therefore recommend a mid-block crosswalk at the following high traffic location:

Mid-Block Crosswalk (Phase 1)

- Mid-block across Route 199 (Church Street) at Peck's Market. This will require NYSDOT-Region 8 approval. The mid-block crosswalk should be supplemented with pedestrian warning signs, traffic calming elements and, if possible, lighting to ensure that the person crossing is visible.



A mid-block crosswalk, coupled with appropriate crosswalk warning signs, on Route 199 (Church Street) at Peck's Market would improve pedestrian safety.



In-street Pedestrian Crossing signs (R1-6 or R1-6a) may be used to remind road users of laws regarding right-of-way at an unsignalized crosswalk. Note: the legend STATE LAW is optional. A fluorescent yellow-green background color may also be used instead of yellow.

1-2. Improve Access to Stissing Mountain Middle/High School (Phase 1)

With approximately 600 students combined, plus staff, Stissing Mountain Middle/High School serves as an important activity center within the Town Center. And though vehicles are well served on the School site, pedestrian and bicycle access is somewhat limited. This makes sense given the need to provide school bus access and accommodate staff and students driving in from beyond the Town Center area. However, the School District and Town should take steps to improve non-motorized safety on the site and gradually build better pedestrian connections into the School property from Route 199 (Church Street) and even Jackson Road. Improved pedestrian access at the School would support the District's Wellness Program and encourage staff and students to walk into the Town Center during breaks, and in turn, encourage local residents to walk to school activities and athletic events.

We therefore recommend that the Pine Plains Central School District, in conjunction with the Town, develop an internal pedestrian and bicycle plan for the Middle/High School. As one of its goals, the plan should determine the feasibility of adding sidewalks and/or multi-use trails into the School property, especially from Route 199 (Church Street) to the south and Jackson Road to the north. In the meantime, minor crosswalk improvements could be undertaken to improve pedestrian safety in the School parking lot.

Middle/High School Pedestrian & Bicycle Planning (Phase 1)

- Develop a School District sponsored pedestrian and bicycle circulation plan for the Middle/High School property, looking at ways to improve non-motorized access to the School from Route 199 (Church Street) to the south, Jackson Road to the north, and possibly east to Pioneer Drive (along what is locally known as “Kilmer Rd”).

Crosswalks

- Restripe the faded crosswalk located in the School’s front parking lot (located on the western side of the building front).
- Add a new crosswalk by the building’s main entrance, connecting the east-side of the front parking area to the sidewalk entrance.
- Install high visibility pedestrian warning signs at crosswalks to alert drivers of pedestrians.



Installing bicycle racks at the Town Center Park would be a low cost improvement that would make the commercial center more attractive to visitors.

1-3. Improve Access to Stissing Lake Park (Phase 1)

Stissing Lake Park serves as an important recreational asset to residents and visitors alike. As a major attraction, pedestrian and bicycle access to the Park should be improved. Though Stissing Avenue and Lake Road have sufficiently wide shoulders for walkers and bikers, their safety could be improved by better lane markings that define the road shoulder. Such lane markings would be a relatively low cost improvement, especially compared to a new sidewalk.

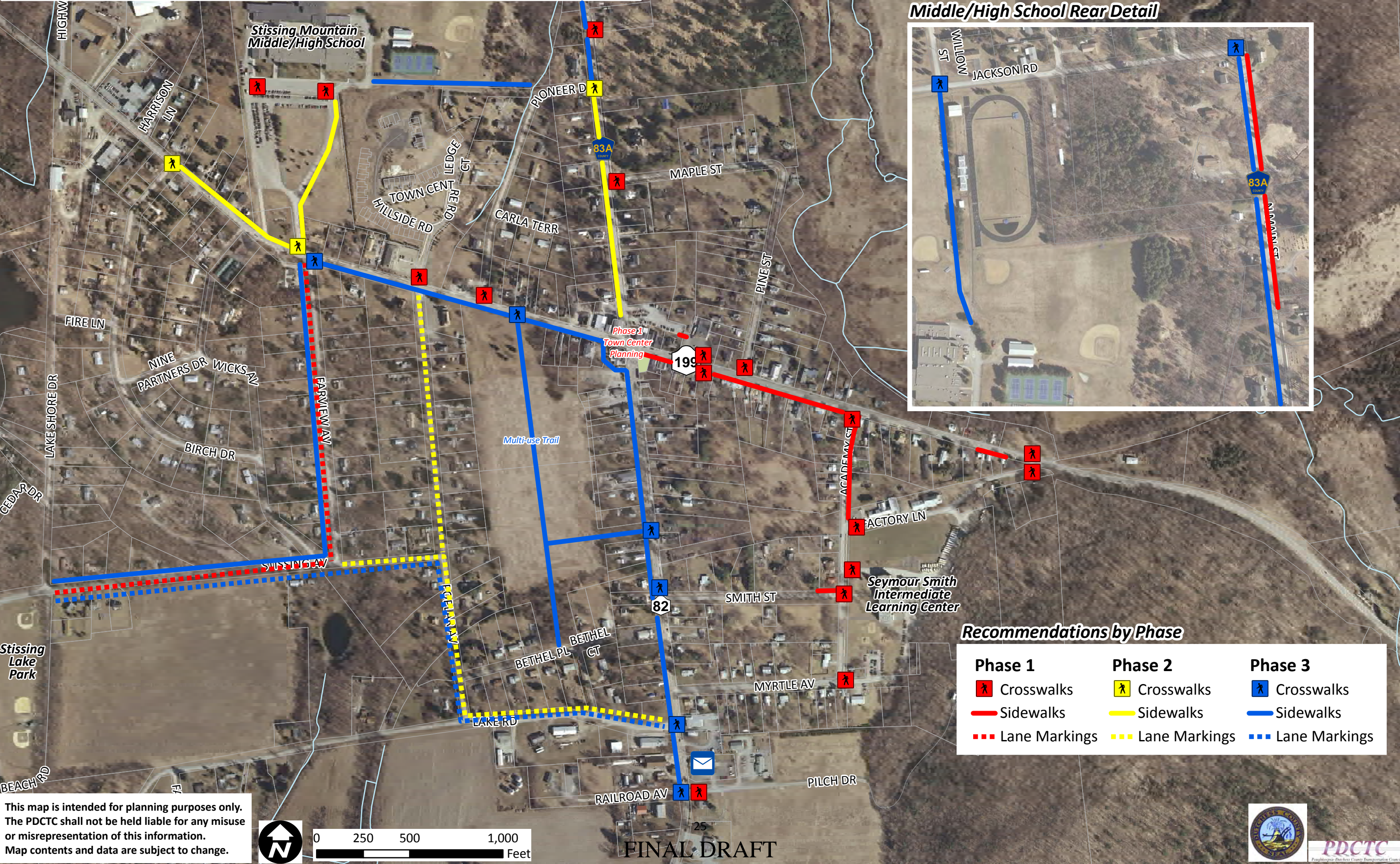
- Add center and shoulder lane markings on Fairview Avenue from Route 199 (Church Street) to Stissing Avenue. This should include an evaluation of the feasibility of marking 9 foot vehicle travel lanes and increasing shoulder widths to 4-5 feet.
- Add center and shoulder lane markings on Stissing Avenue from Poplar Avenue to Lake Shore Drive.
- Install advance pedestrian and bicycle warning signs on Stissing Avenue for both east and west bound directions.
- Install way finding signs for Stissing Lake Park on Route 82 (South Main Street), Lake Road, Poplar Avenue, and Stissing Avenue.

1-4. Town Center Conceptual Redesign (Phase 1)

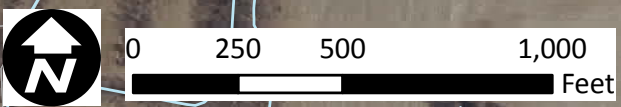
Given its role as the commercial focal point of Pine Plains, we recommend that the Town work with the Dutchess County Department of Planning Development to develop one or more conceptual design alternatives for the area in and around the Route 82/199 intersection. In the meantime, minor

Pine Plains Town Center Pedestrian Plan Recommendations FINAL DRAFT

Figure 5



This map is intended for planning purposes only. The PDCTC shall not be held liable for any misuse or misrepresentation of this information. Map contents and data are subject to change.



Recommendations by Phase		
Phase 1	Phase 2	Phase 3
Crosswalks	Crosswalks	Crosswalks
Sidewalks	Sidewalks	Sidewalks
Lane Markings	Lane Markings	Lane Markings



improvements should be made to improve pedestrian and bicycle access in the commercial center.

- In conjunction with Dutchess County Planning, develop conceptual design alternatives for the Town Center.
- Install bicycle parking at one or more locations in the Town's commercial center, possibly at the Town Center Park.

Phase 2 Priority Work Items

Phase 2 builds upon the sidewalk and crosswalk improvements in Phase 1 and begins the process of expanding pedestrian connections into the Town Center, notably from the residential areas located to the north and west of the Route 82/199 intersection.

2-1. Town Center Pedestrian Improvements (Phase 2)

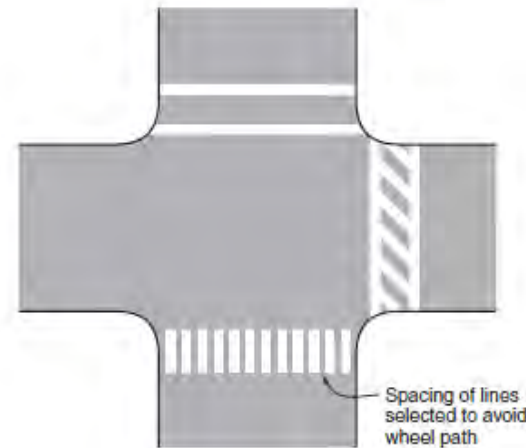
New Sidewalks (Phase 2)

- Construct a new sidewalk on the north-side of Route 199 (Church Street) from the High School entrance to the Birch Drive intersection (approx. 700 feet). This would better connect the residential areas in the southwest section of the Town Center to the Middle/High School and commercial center.
- Construct a new sidewalk on the west-side of CR 83A (North Main Street) between Pioneer Drive and Route 199 (Church Street) (approx. 1,300 feet). This would provide an additional connection between the densely

populated residential areas just north of the Middle/High School into the Town Center.

New Crosswalks (Phase 2)

- Add a crosswalk across Route 199 (Church Street) at the Birch Drive intersection, connecting to the new sidewalk on the north-side of Route 199.
- Add a crosswalk across the Middle/High School entrance, connecting the new Phase 2 sidewalk with the existing north-side sidewalk on Route 199 (Church Street).
- Add a crosswalk across CR 83A (North Main Street) at the Pioneer Drive intersection, connecting the two sidewalks on both sides of CR 83A.
- Install advance pedestrian warning signs on all approaches to Phase 2 crosswalks.



The MUTCD provides a number of marking options for crosswalks; though, we recommend the two ladder designs (bottom and right) instead of the simple parallel line design (top).

2-2. Improve Access to Stissing Mountain Middle/High School (Phase 2)

As part of the planning work done by the Pine Plains Central School District, we recommend that the Town explore the feasibility of adding a sidewalk into the front of the Middle/High School. Adding a sidewalk connection to the property will not only improve safety, but would encourage students and staff to walk to school, and local resident to walk to school events.

- Construct a new sidewalk into the main entrance of the Middle/High School, which would connect to the existing sidewalk on the north-side of Route 199 (Church Street).

2-3. Improve Access to Stissing Lake Park (Phase 2)

Based on the success of the improved lane markings on Stissing Avenue under Phase 1, the Town may wish to explore similar treatments on Poplar Avenue and a section of Lake Road, which serve as other access ways to Stissing Lake Park. Lake Road also serves as an important gateway to Stissing Mountain.

- Add center and shoulder lane markings on Lake Road, from Route 82 (South Main Street) to Poplar Avenue. This should include an evaluation of the feasibility of reducing vehicle travel lanes to 9 feet and increasing shoulder widths to 4-5 feet.
- Add center and shoulder lane markings on Poplar Avenue from Route 199 (Church Street) to Lake Road.

- Add center and shoulder lane markings on Stissing Avenue from Fairview Avenue to Poplar Avenue.
- Install advance pedestrian and bicycle warning signs on Lake Road and Poplar Avenue in both directions.



Lane markings on Lake Road would better communicate positioning information to road users, whether they are pedestrians, bicyclists, or drivers. They could also serve as a traffic calming device.

2-4. Town Center Conceptual Redesign (Phase 2)

As a result of the conceptual design work completed by the Town and Dutchess County Planning Department, the Town (with support from County staff as necessary) should actively engage local property owners and NYSDOT on implementing design recommendations. Implementation will likely require an incremental approach, addressing one parcel at a time as ownership changes or redevelopment proposals are brought forth to the Town. However, the Town should engage key willing property owners and identify ways to pursue certain pedestrian and bicycle improvements in this study.

Phase 3 Priority Work Items

The third phase of the sidewalk improvement plan includes some of the more ambitious and costly recommendations in the study. We provide them as discussion points, with the idea that one or more of them might be implemented under the right conditions and funding opportunities (e.g. award of federal or State funding) – and more importantly, with the support of Town residents.

3-1. Town Center Pedestrian Improvements (Phase 3)

New Sidewalks (Phase 3)

- Construct a new sidewalk on the south-side of Route 199 (Church Street) from Fairview Avenue to Route 82 (South Main Street) (approx. 1,700 feet).
- Construct a new sidewalk on the west-side of Route 82 (South Main Street) from Route 199 (Church Street) to Railroad Avenue, across from the Post Office (approx. 2,300 feet). This would include repairing the short section of sidewalk just south of the Community Center on Route 82 (approx. 100 feet).
- Construct a new sidewalk on one-side of Fairview Avenue from Route 199 (Church Street) to Stissing Avenue and a new sidewalk on one-side of Stissing Avenue from Fairview Avenue to Lake Shore Drive and the entrance to Stissing Lake Park. This would provide a safe, dedicated pedestrian way between the Middle/High School and Stissing Lake Park. These improvements should include appropriate crosswalks at all intersections, coupled with pedestrian

warning signs.

Construct a new sidewalk on the west-side of CR 83A (North Main Street) between Pioneer Drive and Jackson Road (approx. 1,400 feet). This would provide an additional connection between the densely populated residential areas just north of the Middle/High School into the Town Center.



This existing sidewalk on the west-side of Route 82 (South main Street) should be extended north to the Route 199 (Church Street) intersection.

New Crosswalks (Phase 3)

- Add a crosswalk across CR83A (North Main Street) at the Jackson Road intersection.
- Add a crosswalk across Route 82 (South Main Street) at the Smith Street intersection.
- Add a crosswalk across Route 82 (South Main Street) at the Lake Road intersection.

- Add a crosswalk across Route 199 (Church Street) at the Fairview Avenue intersection.

New Multi-use Trail (Phase 3)

- Explore the possibility of constructing a multi-use walking and bicycling trail through the two vacant parcels currently owned by St. Anthony's Church, south of Route 199 (Church Street.). Such a trail would naturally require some form of easement or land transfer from the Church, but if deemed feasible, it could have two components:
 - A main north-south trail connecting Route 199 to Bethel Place, which would provide an alternate connection to Stissing Lake Park via Poplar Avenue and Stissing Avenue.
 - A short east-west trail connecting the main trail to Route 82 (South Main Street), which would provide access to the southern section of the Town Center.

Depending on the Town's vision for the two vacant parcels, any new trail could be constructed as a stand-alone feature (e.g. part of new Town park) or integrated into future development at the site. Responsibility for trail maintenance would need to be considered as part of any project. In addition, any new facility should include crosswalks at the new Route 82 (South Main Street) and Route 199 (Church Street) trailheads.

Regardless of future ownership, the Town should ensure that any development of these vacant parcel include some form of public right away.

3-2. Improve Access to Stissing Mountain Middle/High School (Phase 3)

Continuing on the efforts to improve pedestrian access to the Middle/High School, the School District and Town should explore the feasibility of constructing a sidewalk or multi-use trail between the Middle/High School (north-side or rear) north to Jackson Road. This would provide direct School access for students living north of the School.

- Construct a new sidewalk from the Middle/High School (rear) to Jackson Road. The new sidewalk could use the existing service road alignment that ends at the Jackson Road/Wilson Street intersection (approx. 875 feet).
- As determined by the School District, access to the new sidewalk may need to be restricted during non-school hours.
- A crosswalk should also be added across Jackson Road, connecting Willow Street to the new sidewalk.



The service road behind Stissing Mountain Middle/High School should be upgraded to a concrete sidewalk, which would provide a safer pedestrian connection from nearby residences.

3-3. Improve Access to Stissing Lake Park (Phase 3)

Depending on future pedestrian and bicycle traffic on Stissing Avenue and Lake Road., the Town could explore the use of shared-lane markings or “sharrows,” which warn motorists of a narrow shared lane. Sharrows highlight a bicyclists’ right to ride in the travel lane, requiring motorists to leave their lane to pass a bicyclist (note: bicyclists must still obey all signs and signals). In general, bicyclists can comfortably share lanes with motor vehicles on streets with average speeds below 30 mph. With sharrows, bicyclists may use the full lane if needed to avoid debris, bad pavement, parked vehicles, other obstacles, or to make a left turn. See Figure 6 below.

Figure 6. Bicycle Sharrows



Sharrows are typically used on narrow lanes, defined by NYSDOT as lanes with less than 14 feet of usable width or less

than 26 feet of usable width with a marked on-street parallel parking lane, and are appropriate on streets with speed limits up to 35 mph and no shoulders (or inadequate shoulders). They should be placed in the center of the effective lane and can be supplemented by bicycle warning signs and regulatory signs alert drivers to the presence of bicycles in travel lanes.



The Town should use appropriate warning signs in conjunction with new lane markings. These might include Bicycle Warning signs (W11-1) on the left and Bicycles May Use Full Lane signs (R4-1) on the right.

3-4. Town Center Redesign (Phase 3)

As part of the Town Center redesign, the Town, working with local property owners, should explore the feasibility of improving pedestrian access in and around the Stissing House. This should include the provision of a sidewalk on the south-side of Route 199 (Church Street) in front of Stissing House and also a sidewalk around the rear of Stissing House. A short bypass would provide a pedestrian connection from Route 199 (Church Street) to Route 82 (Main Street), allowing walkers travelling south to avoid the main intersection.

Sidewalk Improvement Strategy Summary

The Sidewalk Improvement Strategy identifies specific work items that the Town should pursue, in conjunction with NYSDOT, Dutchess County DPW, and property owners, to

improve its sidewalk system and promote pedestrian safety and mobility. In total it includes the construction or repair of over 11,000 linear feet of new and existing sidewalks, coupled with adding crosswalks at over 25 locations. These numbers point to the scope of the challenge facing NYSDOT, Dutchess County, and the Town as they attempt to create a safe and seamless walking environment throughout the Town Center. To that end, this strategy addresses this challenge by establishing a logical, systematic approach to improving the sidewalk system. The Phase 1 work items represent the most feasible actions, while Phase 2 and 3 work items represent the most costly and therefore most difficult to implement.

Policy Recommendations

The Town's current zoning ordinance provides general information on how and when to consider sidewalks in site plans, and what pedestrian improvements should be considered in various zoning districts. Below are pedestrian-related provisions from the Town's 2009 Zoning Law:

- In general, the Zoning Law requires that sidewalks connect residential buildings with parking areas, public streets, recreation facilities and other amenities.
- The Hamlet-Center Residential (H-CR) District allows residential uses at the highest densities in the Town, consistent with the existing residential character of the Pine Plains hamlet. The Zoning Law specifies that the H-CR district shall be interconnected to other portions of the Pine Plains hamlet through a comprehensive sidewalk system.

- The New Neighborhood Development (NND) District is an unmapped floating zone that is established only upon an applicant's submission of a zoning petition and approval of the petition by the Town Board. The Law notes that the Residential Core and Peripheral Residential Area of a NND district shall be served by a series of sidewalks and/or trails.
- The Town's Hamlet Design Standards call for 4 to 6 foot wide sidewalks, separated from the street curb or edge by a 3 to 6 foot wide planting strip. Proposed sidewalks shall transition to existing walkways where required and shade trees shall be planted within the planting strip.
- The Town also encourages the use of the County's Greenway Guide (B2: Walkable Communities), which includes the following provisions:
 - Streets shall be provided with continuous sidewalks on one or both sides of the street. Sidewalks shall be four to five feet wide and constructed of concrete, masonry materials, or slate. Asphalt sidewalks are prohibited.
 - Any new sidewalk shall be connected to existing sidewalks. Sidewalks shall comply with all applicable requirements of the American with Disabilities Act.
 - Crosswalks shall be provided at all street intersections and shall be clearly marked with contrasting paving materials at the edges or with striping.

The Town could consider the following sidewalk-specific additions to its zoning law and enforcement:

Streetscape Design

- Add a “Streetscape Design” section to the Zoning Law. Within this new section, include minimum sidewalk width (raise it from the four feet allowed now to at least five feet); location (possibly with five feet between a curb or fog line and the edge of the sidewalk); construction specifications; pedestrian lighting; street tree requirements; and spacing between lights and trees.
- Include pictorial element/graphics in a “Streetscape Design” section. Form-based sections would be an easy and effective way to illustrate the Town’s vision.

Zoning Enforcement

- As with many town codes, the Town might increase fines for repeated sidewalk maintenance violations. For example, if the first fine is \$150, the second, for the same infraction, could be \$250 and the third, \$350. After three violations, town should take the necessary maintenance action and add its costs to a site’s annual property tax. The Town may want to warn property owners of violations before implementing fines, and dedicate fine payments to sidewalk construction and maintenance only.
- Add, to maintenance requirements, that owners make a reasonable effort to not allow ponding or water build-up onto sidewalks. The Town Board should consider adding language requiring that no gutter or downspout directly poor onto a sidewalk (if at all possible).



The Town should enforce sidewalk maintenance requirements, such as keeping the pedestrian right-of-way clear of leaves and vegetation.

Site Plan Approval

- The Town Planning Board in future site plan approvals should also minimize curb cuts, combine driveways whenever possible, and require sidewalks to continue across all driveways, rather than be interrupted at each entrance or exit.
- Encourage the use of Context Sensitive Designs, so that, in addition to traffic service and safety needs, environmental, scenic, aesthetic, natural resource and community needs are also addressed. For example, raised crosswalks, road diets (reducing excess lane width via bump outs or on-street parking), and intersection curb extensions are all concepts that should be explored with new road projects. In particular, curb extensions could be incorporated

wherever a new crosswalk with a handicapped-accessible ramp is located.

- Make concrete the only acceptable new sidewalk material.

Sidewalk Improvement District (SID)

The Town might also explore the possibility of creating a Sidewalk Improvement District (SID) for its central business district. In general, special districts such as a SID are established to offer services to properties in a specific area of the municipality. Property owners are charged for those services through assessments or fees. Many governments create special districts to fund water and sewer projects, fire protection services, and street lighting. Accordingly, municipalities can establish special districts to support the construction and maintenance of sidewalks. Such a district would remove the burden of sidewalk maintenance from individual property owners to the Town, which would be responsible for constructing, repairing, and maintaining sidewalks (this could include snow removal). The Town's sidewalk program would be funded by an annual sidewalk assessment fee for properties located in the district.

For example, the City of Ithaca, New York recently enacted a new Sidewalk Policy in 2014 to support the construction and repair of sidewalks across five districts. All lots in the districts, including those that are exempt from property taxes, are subject to the assessments. The money raised in each district must be used solely for work performed in that district; thus, while the amount raised in each district will vary, the property owners in each district will be assessed proportionately to the

scope and cost of work occurring in that district. Ithaca uses a scaled system, where Low-Foot-Traffic Lots pay an Annual Maintenance Fee of \$70, while all other lots pay an Annual Maintenance Fee of \$140, plus a Square Footage Fee (\$0.015 per square foot of buildings on a lot) and a Frontage Fee (\$30 for each 55 feet of lot frontage).

Unit Cost Estimates

Cost estimates require a detailed understanding of the project context and components. However, as per the PDCTC's pedestrian-bicycle plan, *Walk Bike Dutchess*, cost estimating tools can provide planning-level estimates. NYSDOT's Quick Estimator Reference is an Excel-based tool for estimating costs of various improvements. It does not include costs related to acquiring right-of-way, relocating utilities, or altering drainage structures. The Downstate NY tab is most applicable to Dutchess County. Current unit cost estimates from the tool are listed below (see the tool itself for more details). Cost estimates for items not listed in the tool can be provided by NYSDOT-Region 8, the Dutchess County Department of Public Works, or Town Highway Department.

In addition, the *Pedestrian and Bicycle information Center* has developed a national database of pedestrian and bicycle infrastructure costs which is available as both a .pdf report and an Excel spreadsheet. This database includes cost estimates for over 70 items including walking facilities, bicycle facilities, traffic calming treatments, streetscape amenities, signals, signs and striping.

NYSDOT Quick Estimator Reference

- Sidewalk (5 feet wide): \$74 per linear foot
- Shared-use path (10 feet wide): \$185 per linear foot
- Curb ramp: \$1,900 ea.
- Marked crosswalk: \$1,900 ea.
- Concrete curb: \$73 per linear foot
- Asphalt paved snow storage area (adjacent to sidewalk): \$18.50 per square foot
- Raised crosswalk: \$15,000 ea.
Mini-roundabout (for low-speed urban environments): \$175,000 ea.
- Small sign: \$171 ea.
- Radar speed sign (solar powered): \$9,000 ea.
- Pedestrian push-button (on existing signal): \$2,445 ea.
- New pedestrian signals with push-buttons (2 per crossing): \$7,500 per crossing
- Work zone traffic control: 5 percent of construction cost (based on project complexity)
- Incidentals, inflation, and contingency: 20 percent of construction cost (estimated)
- Survey: 10 percent of total construction cost (estimated)
- Design: 5-15 percent of total construction cost (based on project complexity)
- Construction Inspection: nine percent of total construction cost (estimated)

Other Unit Cost Estimates

- Bicycle parking rack (inverted U rack only; not including installation): \$100 ea.
- Paved shoulder (6-8 feet wide, full depth, including excavation, sub-base and asphalt): \$40-55 per linear foot
- Paved shoulder (4 feet wide, full depth, including excavation, sub-base and asphalt): \$35 per linear foot
- Resurfaced asphalt shoulder (4 feet wide, 1.5 inch depth): approximately \$4 per linear foot
- Sidewalk grass buffer (5 feet wide): \$32 per linear foot
- Epoxy pavement stripes: \$3.50 per linear foot if less than 1,000 feet; \$1.00 or less per linear foot if 20,000 feet or more.
- Pavement symbols: \$200 ea.
- New traffic signal with pedestrian signals and push buttons: \$150,000 per intersection (based on multi-lane roadways)

The costs listed above are current as of writing but will likely change in future years. Costs related to right-of-way, drainage, and utility work can vary substantially and may affect the feasibility of recommended projects.

Funding Options

There are a variety of funding sources available for pedestrian projects, ranging from local municipal funds to federal transportation funds.

Local Funds

Although local resources are extremely limited, local funds are more flexible and require less reporting and administrative work than federal funds; some municipalities find that it is less expensive to use local funds than federal sources. Local funding mechanisms include the following:

- **General Fund/Discretionary Funds:** Though local general funds are the most flexible funding source, they are also the most limited. The Town will need to weigh the project against other local priorities.
- **Local Bond:** The Town might seek pursue a local bond to fund sidewalk improvements.
- **Development Condition of Approval:** The Town's zoning requires that for any new construction or redevelopment of existing sites in all commercial districts, including the Town Center zoning district, sidewalks along the entire streetfront be established. Providing contiguous sidewalks in the district therefore depends on the level of redevelopment expected in the Town. Prospective developers would have to construct or provide funding for construction of the pedestrian improvements as part of their project, as long as this requirement is enforced.
- **Foundation Grants:** Foundations may have funding for pedestrian and/or school-related projects. The Foundation Center website has a national database of grant-makers and grants, as well as other tools for grant-seekers; see <http://foundationcenter.org>.

Federal Funds

Most federal transportation funding originates from the multi-modal federal transportation law in effect at the time; the most current law being the *Moving Ahead for Progress in the 21st Century* (MAP-21), which was enacted in 2012. To use federal transportation funding, a project must be consistent with an overall transportation plan, such as *Moving Dutchess* (2011) and be included in the PDCTC's Transportation Improvement Program (TIP).

Federal transportation funding sources that could be used for pedestrian and bicycle improvements include the following programs:

- **National Highway Performance Program (NHPP):** These funds may be used to construct pedestrian facilities on land adjacent to any highway on the National Highway System, which includes Route 9.
- **MAP-21 establishes a new program, Transportation Alternatives (TA),** to provide for a variety of alternative transportation projects that were previously eligible activities under separately funded programs, such as the Transportation Enhancement Program, Recreational Trails Program, and the Safe Route to Schools Program. Half of all TA funds are distributed to areas based on population (sub-allocated), similar to the Surface Transportation Program (see below).
- **Surface Transportation Program (STP):** These funds may be used either for the construction of bicycle transportation facilities and pedestrian walkways, or non-construction

projects (such as brochures, public service announcements, and route maps) related to safety. A portion of each State's STP funds must be used for Transportation Alternatives Program (TAP) (see below).

- **Transportation Alternatives Program (TAP):** This is a reimbursement program that provides funding for pedestrian and/or bicycle infrastructure, as well as scenic easements, landscaping, and other projects. The program is funded by a set-aside under the federal Surface Transportation Program. Projects must have a municipal sponsor, and typically, a minimum total cost of \$200,000, with a minimum 20 percent non-federal match. Eligible costs include studies, design, construction, and right-of-way acquisition. Administrative and maintenance costs are not eligible. For more information on the program, see
- **Community Development Block Grants (CDBG):** These are federal funds from the U.S. Department of Housing and Urban Development and are administered by the Dutchess County Department of Planning and Development. Eligible activities include economic development and infrastructure improvements (such as sidewalk construction, road work, and drainage) in areas defined as low and moderate income, or in some cases to benefit disabled persons or the elderly. CDBG could fund construction and engineering work, but not an engineering study or administrative costs.

The federal share of the costs of projects under the NHPP, STP, and TAP programs is generally 80 percent. If these funds were used, the project sponsor would be responsible for the required local match and any costs that are not covered by

federal funds. Engineering studies can be funded by local funds or TAP funds. The design and construction of pedestrian facilities could be funded by any of the sources above, and could be a stand-alone project or combined with a roadway project. A large project could also be split into several smaller pieces with funding from different programs.

Final Thoughts

Communities across the nation face the challenge of prioritizing the repair of aging infrastructure or constructing additional improvements to meet future needs. Such improvements take time and funding, both of which can be in short supply. Nonetheless, communities must start somewhere; we hope this study provides Pine Plains with that start — first, by identifying the scope of the challenge through an assessment of existing sidewalk facilities and second, by presenting a set of recommendations to improve the sidewalk system and reinforce pedestrian connections throughout the Town Center. With concerted efforts by municipal leaders, agency staff, and residents, along with federal and State funding support, these goals are achievable — and walking and bicycling can become part of everyday life in Pine Plains.

Table 5. Pine Plains Pedestrian Plan Recommendations

Project Description	Project Type	Responsible Agencies ¹	Est. Cost (2014) ²
PHASE 1			
Rehabilitate the Academy/Smith St. intersection, including the eastern section of sidewalk (approx. 100 feet) on Smith St., in front of the Seymour Smith Intermediate Learning Center. This should include drainage improvements, new crosswalks or a pedestrian box, and high-visibility pedestrian crossing/warning signs.	Sidewalk (Repair)	Town	\$32,000
Repair sections of the east-side sidewalk on Academy St. from Route 199 (Church St.) south to Factory Ln. (approx. 550 feet).	Sidewalk (Repair)	Town	\$10,200
Repair the south-side sidewalk on Route 199 (Church St.), just east of the Route 82 (Main St.) intersection, to Academy St. (approx. 1,000 feet).	Sidewalk (Repair)	NYSDOT & Town	\$74,000
Repair the small section of damaged sidewalk on the east-side of CR 83A (North Main St.) by Evergreen Cemetery (70 North Main St.) (approx. 65 feet).	Sidewalk (Repair)	DCDPW & Town	\$4,810
Repair the short section of unusable sidewalk on the far-western part of Route 199 (Church Street) near Factory Lane (approx. 175 feet).	Sidewalk (Repair)	NYSDOT & Town	\$12,950
Construct a new sidewalk on the east-side of CR 83A (North Main St.) from Evergreen Cemetery to Jackson Rd. (approx. 1,000 feet).	Sidewalk (New)	DCDPW & Town	\$74,000
Add a new crosswalk on Town Center Rd. at Route 199 (Church St.).	Crosswalk	Town	\$1,900
Add a new crosswalk on Pioneer Dr. at Route 199 (Church St.).	Crosswalk	Town	\$1,900
Add a new crosswalk at Peck's Market (both driveways) at Route 199 (Church St.).	Crosswalk	Town	\$1,900
Add a new crosswalk on Academy St. at Route 199 (Church St.), to include crosswalks across Route 199 connecting the	Crosswalk	Town	\$5,700
Add a new crosswalk on Pine St. at Route 199 (Church St.).	Crosswalk	Town	\$1,900
Add a new crosswalk on Pilch Dr. at Route 82 (South Main St.).	Crosswalk	Town	\$1,900
Add a new crosswalk on Maple St. at CR 83A (North Main St.).	Crosswalk	Town	\$1,900
Add a new crosswalk on Evergreen Cemetery driveways at CR 83A (North Main St.).	Crosswalk	Town	\$1,900
Add a new crosswalk on Factory Ln. at Academy St.	Crosswalk	Town	\$1,900
Add a new crosswalk on the northern driveway of the Seymour Smith Intermediate Learning Center at Academy St.	Crosswalk	Town & PPCSD	\$1,900
Add a new crosswalk on Myrtle Ave. (i.e. southern driveway of the Learning Center) at Academy St.	Crosswalk	Town	\$1,900
Add a mid-block crosswalk across Route 199 (Church St.) at Peck's Market.	Crosswalk	NYSDOT & Town	\$1,900
Restripe the faded crosswalk located in the School's front parking lot (located on the western side of the building).	Crosswalk	PPCSD	\$1,900
Add a new crosswalk by the Middle/High School's main entrance, connecting the east-side of the front parking area to the sidewalk entrance.	Crosswalk	PPCSD & Town	\$1,900
Develop a School District sponsored pedestrian and bicycle circulation plan for the Middle/High School property, looking at ways to improve non-motorized access to the School from Route 199 (Church St.) to the south and Jackson Rd. to the north.	Planning	PPCSD & Town	na
Add center and shoulder lane markings on Fairview Ave. from Route 199 (Church St.) to Stissing Ave., to include a feasibility analysis of reducing vehicle travel lanes to 9 feet and increasing shoulder widths to 4-5 feet.	Pavement Markings	Town	\$5,600
Add center and shoulder lane markings on Stissing Ave. from Poplar Ave. to Lake Shore Dr.	Pavement Markings	Town	\$5,600
Install advance pedestrian and bicycle warning signs on all Phase 1 crosswalks	Signs	Town	\$3,420
Install way finding signs for Stissing Lake Park on Route 82 (South Main St.), Lake Rd., Poplar Ave., and Stissing Ave.	Signs	NYSDOT & Town	\$855
Install bicycle parking at one or more locations in the Town's commercial center, possibly at the Town Center Park.	Bicycle Parking	Town & DCPD	\$200
In conjunction with Dutchess County Planning, develop conceptual design alternatives for the Town Center.	Planning	Town & DCPD	na

FINAL DRAFT

Table 5. Pine Plains Pedestrian Plan Recommendations

Project Description	Project Type	Responsible Agencies ¹	Est. Cost (2014) ²
PHASE 2			
Construct a new sidewalk on the north-side of Route 199 (Church St.) from the High School entrance to the Birch Drive intersection (approx. 700 feet).	Sidewalk (New)	NYS DOT & Town	\$51,800
Construct a new sidewalk on the west-side of CR 83A (North Main St.) between Pioneer Drive and Route 199 (Church St.) (approx. 1,300 feet).	Sidewalk (New)	DCDPW & Town	\$96,200
Construct a new sidewalk into the main entrance of the Middle/High School, which would connect to the existing sidewalk on the north-side of Route 199 (Church St.) (approx. 900 feet).	Sidewalk (New)	PPCSD	\$66,600
Add a crosswalk across Route 199 (Church St.) at the Birch Drive intersection, connecting to the new sidewalk on the north-side of Route 199.	Crosswalk	NYS DOT & Town	\$1,900
Add a crosswalk across the Middle/High School entrance.	Crosswalk	PPSD & Town	\$1,900
Add a crosswalk across CR 83A (North Main Street) at the Pioneer Drive intersection, connecting the two sidewalks on both sides of CR 83A.	Crosswalk	DCDPW & Town	\$1,900
Add center and shoulder lane markings on Lake Rd. from Route 82 (South Main St.) to Poplar Ave.	Pavement Markings	Town	\$3,850
Add center and shoulder lane markings on Poplar Ave. from Route 199 (Church St.) to Lake Rd.	Pavement Markings	Town	\$8,225
Add center and shoulder lane markings on Stissing Ave. from Fairview Ave. to Poplar Ave.	Pavement Markings	Town	\$3,850
Install advance pedestrian warning signs on all approaches to Phase 2 crosswalks.	Signs	NYS DOT, DCDPW, & Town	\$1,368
Install advance pedestrian and bicycle warning signs on Lake Rd. and Poplar Ave. in both directions.	Signs	Town	\$684
Engage local property owners and NYS DOT on implementing Town Center design recommendations from Phase 1.	Planning	Town & DCPD	na
PHASE 3			
Construct a new sidewalk on the south-side of Route 199 (Church St.) from Fairview Ave. to Route 82 (South Main St.) (approx. 1,700 feet).	Sidewalk (New)	NYS DOT & Town	\$125,800
Construct a new sidewalk on the west-side of Route 82 (South Main St.) from Route 199 (Church St.) to Railroad Ave., across from the Post Office (approx. 2,300 feet). This would include repairing the short section of sidewalk just south of the Community Center on Route 82 (approx. 100 feet).	Sidewalk (New)	NYS DOT & Town	\$177,600
Construct a new sidewalk on one-side of Fairview Ave. from Route 199 (Church St.) to Stissing Ave. and a new sidewalk on one-side of Stissing Ave. from Fairview Ave. to Lake Shore Drive and the entrance to Stissing Lake Park (approx. 1,600 feet).	Sidewalk (New)	Town	\$118,400
Construct a new sidewalk on the west-side of CR83A (North Main St.) from Pioneer Dr. to Jackson Rd. (approx. 1,400 feet).	Sidewalk (New)	DCDPW & Town	\$103,600
Construct a new sidewalk from the Middle/High School (rear) to Jackson Rd. The new sidewalk could use the existing service road alignment that ends at the Jackson Rd./Wilson St. intersection (approx. 875 feet).	Sidewalk (New)	PPCSD	\$64,750
Construct a new sidewalk from the Middle/High School east to Pioneer Dr. The new sidewalk could run along the locally known "Kilmer Rd." alignment, adjacent to the School's property line. (approx. 850 feet).	Sidewalk (New)	PPCSD	\$62,900
Develop a sidewalk or pedestrian path around the rear of the Stissing House.	Sidewalk (New)	Property Owner(s)	\$18,500
Add a crosswalk across CR 83A (North Main St.) at the Jackson Rd. intersection, connecting the two new CR 83A sidewalks.	Crosswalk	DCDPW & Town	\$1,900
Explore the possibility of constructing a multi-use walking and bicycling trail through the two vacant parcels currently owned by St. Anthony's Church, south of Route 199 (Church St.).	Planning (Trail)	Town	\$425,500
Depending on future pedestrian and bicycle traffic, the Town should explore the use of shared-lane markings or sharrows on Stissing Ave. and Lake Rd.	Pavement Markings	Town	na

¹ Select agency abbreviations: DCDPW (Dutchess County Dept. of Public Works), DCPD (Dutchess County Planning Dept.), and PPCSD (Pine Plains Central School District).

² Estimated costs reflect planning level estimates from NYS DOT's Quick Estimator Reference tool and do not include right-of-way, drainage, or utility needs.

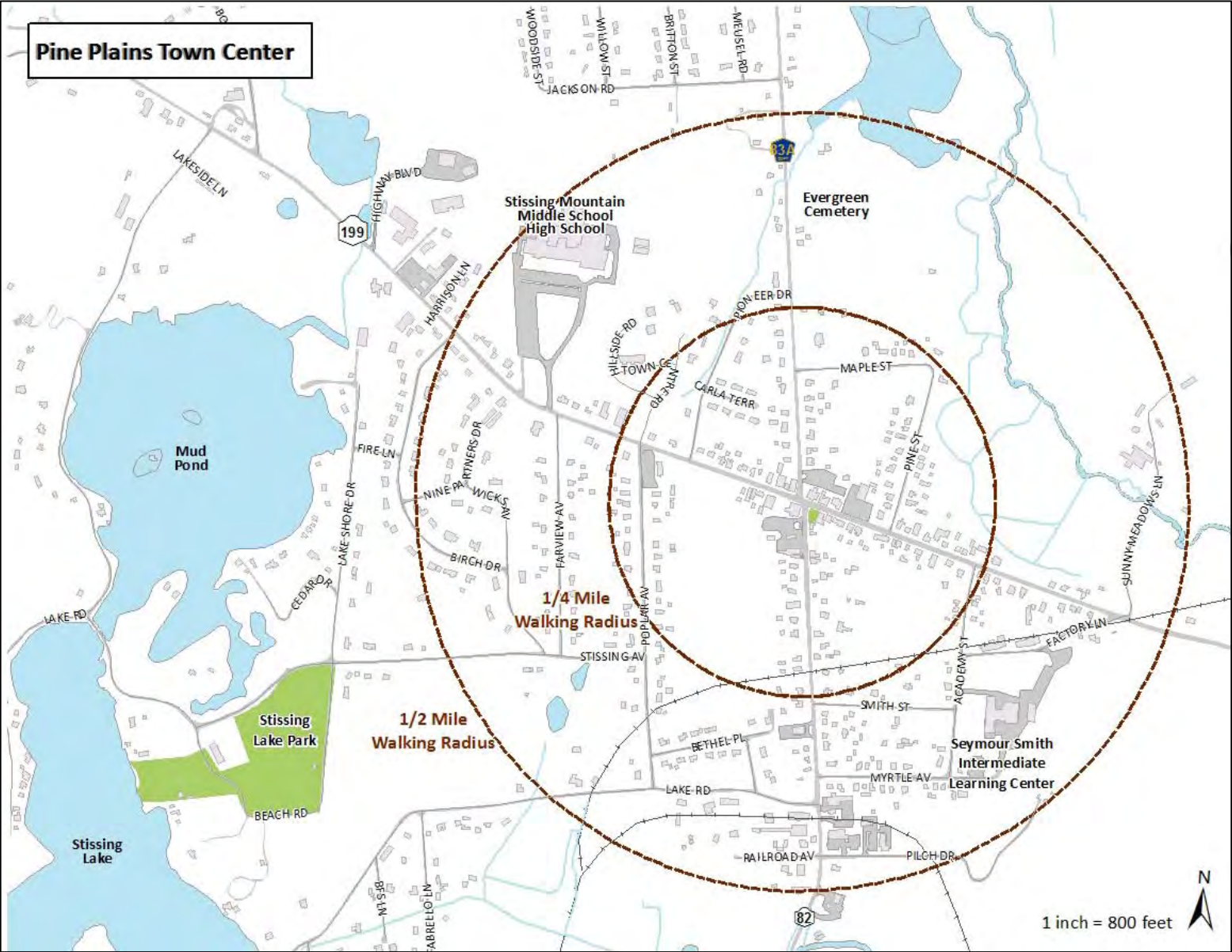
Appendix A
(Survey)

Community Workshop
Pine Plains Town Center Pedestrian Plan &
Town-wide Trail and Bikeway Plan

Wednesday, June 25
7:00 to 9:00 PM

Pine Plains Town Hall
3284 Route 199, Pine Plains NY 12567

The Pine Plains Walks Initiative Task Force and Pine Plains Trails & Bikeway Committee invite you to attend a workshop to share your ideas about walking and biking in Pine Plains.



Pine Plains Sidewalks & Trails Survey
A Joint Survey of the Pine Plains Walks Initiative Task Force &
Pine Plains Trails & Bikeway Committee

We need your help! The Town Board has appointed a volunteer *Walks Initiative Task Force* and *Trails & Bikeway Committee* to work with the County Planning Department to improve walking and biking in Pine Plains. For the *Walks Task Force*, this means completing a pedestrian plan for the Town Center (see map on page 4). For the *Trails Committee*, this means completing a Town-wide Trail and Bikeway Plan. Both efforts will better enable the Town to seek funding to promote walking and biking in Pine Plains. **Sidewalks and trails can have a positive impact on communities, providing significant health, economic, safety, environmental, and social benefits to communities.** Please let us know your views by completing this 5-10 minute survey, which includes a special *Trails Committee* insert with questions.

You can fill this form out directly or go to <http://www.surveymonkey.com/s/PinePlainsSidewalksTrails> to complete it electronically. Please return the questionnaire by **July 11, 2014** to Pine Plains Town Hall, Attn: Sidewalks & Trails Survey, PO Box 955, Pine Plains, New York 12567. For more information about the study, please visit the project website: <http://www.dutchessny.gov/pdctc.htm> or contact us via pdctc@dutchessny.gov Thank you - Pine Plains Walks Initiative Task Force & the Pine Plains Trails & Bikeway Committee

1. On average, how often do you walk and/or ride a bicycle? (Select one response for each.)

	Every Day	4-6 Days/ Week	1-3 Days/ Week	A few times/ Month	Rarely	Never	Weekends Only	Not Physically Able
Walk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ride a Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. For which of the following purposes do you usually walk or ride a bicycle? (Select all that apply.)

	Walk Trip Purposes	Bicycling Trip Purposes
To get to a park/recreational area	<input type="checkbox"/>	<input type="checkbox"/>
For exercise/athletic training	<input type="checkbox"/>	<input type="checkbox"/>
To visit family/friends	<input type="checkbox"/>	<input type="checkbox"/>
For errands/shopping	<input type="checkbox"/>	<input type="checkbox"/>
To/from school	<input type="checkbox"/>	<input type="checkbox"/>
To/from work	<input type="checkbox"/>	<input type="checkbox"/>
To walk my pet	<input type="checkbox"/>	<input type="checkbox"/>
To enjoy my community/be outside	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>

3. Why do you choose to walk or bicycle? (Select all that apply.)

	Why I Walk	Why I Bicycle
It's convenient	<input type="checkbox"/>	<input type="checkbox"/>
It's healthy/good exercise	<input type="checkbox"/>	<input type="checkbox"/>
It's pleasant/fun	<input type="checkbox"/>	<input type="checkbox"/>
It's economical	<input type="checkbox"/>	<input type="checkbox"/>
It's environmentally friendly	<input type="checkbox"/>	<input type="checkbox"/>
To be with my family/friends	<input type="checkbox"/>	<input type="checkbox"/>
I don't drive or have access to a vehicle	<input type="checkbox"/>	<input type="checkbox"/>

4. What type of facility do you walk or bicycle on? (Select all that apply.)

	Where I Walk	Where I Bicycle
On sidewalks	<input type="checkbox"/>	<input type="checkbox"/>
On roads/shoulders	<input type="checkbox"/>	<input type="checkbox"/>
On trails/paths	<input type="checkbox"/>	<input type="checkbox"/>
In Town parks	<input type="checkbox"/>	<input type="checkbox"/>
In State or County parks	<input type="checkbox"/>	<input type="checkbox"/>
Indoor or outdoor athletic facilities	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>

5. How important are the following in encouraging you to walk more in the Town Center?

	Very Important	Not Important	No Opinion
Repairing existing sidewalks/better sidewalk maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructing new sidewalks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improving pedestrian crossings (e.g. crosswalks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved access for persons with disabilities (e.g. accessible ramps)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved pedestrian lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planting street trees or adding street furniture (e.g. benches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improving trail connections to the Town Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slower vehicle traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Education on pedestrian and motor vehicle safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stronger enforcement of traffic violations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High fuel prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Why do you choose not to walk or bike in the Town Center?

	Why I Don't Walk (Select 3)	Why I Don't Bicycle (Select 3)
It takes too long	<input type="checkbox"/>	<input type="checkbox"/>
Sidewalk conditions are poor	<input type="checkbox"/>	<input type="checkbox"/>
There's too much traffic	<input type="checkbox"/>	<input type="checkbox"/>
Inadequate road shoulders, sidewalks, or paths	<input type="checkbox"/>	<input type="checkbox"/>
It's too difficult for me physically	<input type="checkbox"/>	<input type="checkbox"/>
The walking/riding environment is unappealing	<input type="checkbox"/>	<input type="checkbox"/>
It's hard to walk/ride with kids, bags, etc.	<input type="checkbox"/>	<input type="checkbox"/>
I don't feel safe	<input type="checkbox"/>	<input type="checkbox"/>
There's no safe place to park my bike	<input type="checkbox"/>	<input type="checkbox"/>
I don't know how to ride on the road/in traffic	<input type="checkbox"/>	<input type="checkbox"/>
I don't have access to a bicycle	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>

7. Would you support any of the following sources of additional funding for pedestrian improvements if needed? (Check all that apply)

- ☐ 50/50 sharing of costs between Town & property owners
- ☐ Point of sale (require repair before selling property)
- ☐ Slight increase in property tax
- ☐ Establish a community fund to accept donations
- ☐ Transportation bonds (borrowing)
- ☐ Do not support additional funding
- ☐ Pursue federal, State, and regional grants
- ☐ Other_____

8. What locations/areas should be more accessible by walking? (Check all that apply)

- ☐ Post Office
- ☐ West Church St (Route 199)
- ☐ Pine Plains Free Library/Community Center
- ☐ East Church St (Route 199)
- ☐ Seymour Smith Elementary School
- ☐ North Main St (CR 83A)/area north of High School
- ☐ Stissing Mountain Middle/High School
- ☐ South Main St (Route 82)
- ☐ Stissing Lake Park/Recreational Area
- ☐ Stissing Ave/Lake Rd towards Stissing Lake Park
- ☐ Stissing Mountain/Thompson Pond
- ☐ Birch Dr, Fairview Ave, or Poplar Ave
- ☐ Evergreen Cemetery
- ☐ Other _____

9. Where is the most difficult location for walking in your area? (Be as specific as possible.) Why?

10. Where is the most difficult location for bicycling in your area? (Be as specific as possible.) Why?

11. Do you have access to an automobile for most trips? ☐ Yes ☐ No

12. Do you have any additional comments about walking or biking in the Pine Plains Town Center?

If you would like to receive future notifications about these projects, please print your email address below:

Appendix B (Survey Results)

Town of Pine Plains Sidewalk and Trails Survey Results

1. On average, how often do you walk and/or ride a bicycle? (Select one response for each.)

Answer Options	Every Day	4-6 Days per Week	1-3 Days per Week	A few times per Month	Rarely	Never	Weekends Only	Not Physically Able	Response Count
Walk	42	24	21	10	7	1	0	0	105
Ride a Bicycle	9	6	18	23	21	19	1	1	98
<i>answered question</i>									110
<i>skipped question</i>									2

2. For which of the following purposes do you usually walk or ride a bicycle? (Select all that apply)

Answer Options	Walk Trip Purposes	Bicycling Trip Purposes	Response Count
To get to a park/recreational area	30	26	41
For exercise/athletic training	88	51	96
To visit family/friends	34	21	40
For errands/shopping	59	21	64
To/from school	13	9	15
To/from work	21	12	24
To walk my pet	47	4	47
To enjoy my community/be outside	76	43	82
Other (please specify)			3
<i>answered question</i>			109
<i>skipped question</i>			3

3. Why do you choose to walk or bicycle? (Select all that apply)

Answer Options	Why I Walk	Why I Bicycle	Response Count
It's convenient	54	26	57
It's healthy/good exercise	96	61	103
It's pleasant/fun	85	56	96
It's economical	47	28	51
It's environmentally friendly	48	32	54
To be with my family/friends	48	30	53
I don't drive or have access to a vehicle	3	4	5
<i>answered question</i>			109
<i>skipped question</i>			3

Town of Pine Plains Sidewalk and Trails Survey Results

4. What type of facility do you walk or bicycle on? (Select all that apply)

Answer Options	Where I Walk	Where I Bicycle	Response Count
On sidewalks	85	24	87
On roads/shoulders	84	65	100
On trails/paths	64	30	70
In Town parks	38	14	40
In State or County parks	34	15	36
Indoor or outdoor athletic facilities	17	2	17
Other (please specify)			6
<i>answered question</i>			109
<i>skipped question</i>			3

5. How important are the following in encouraging you to walk more in the Town Center?

Answer Options	Very Important	Not Important	No Opinion	Response Count
Repairing existing sidewalks/better sidewalk	69	19	9	97
Constructing new sidewalks	65	17	11	93
Improving pedestrian crossings (e.g. crosswalks)	51	26	19	96
Improved access for persons with disabilities (e.g. improved pedestrian lighting	50	19	20	89
Planting street trees or adding street furniture (e.g. improved pedestrian lighting	38	35	18	91
Improving trail connections to the Town Center	46	29	20	95
Slower vehicle traffic	63	20	13	96
Education on pedestrian and motor vehicle safety	40	34	19	93
Stronger enforcement of traffic violations	24	38	24	86
High fuel prices	40	28	22	90
Other (please specify)	35	26	22	83
<i>answered question</i>				106
<i>skipped question</i>				6

6. Why do you choose not to walk or bike in the Town Center?

Answer Options	Why I Don't Walk (Select 3)	Why I Don't Bicycle (Select 3)	Response Count
It takes too long	12	3	13
Sidewalk conditions are poor	19	10	23
There's too much traffic	8	7	13
Inadequate road shoulders, sidewalks, or paths	37	20	43
It's too difficult for me physically	1	2	3
The walking/riding environment is unappealing	16	9	19
It's hard to walk/ride with kids, bags, etc.	12	11	18
I don't feel safe	9	5	10
There's no safe place to park my bike	6	21	22
I don't know how to ride on the road/in traffic	1	3	3
I don't have access to a bicycle	4	12	15
Other (please specify)			13
<i>answered question</i>			69
<i>skipped question</i>			43

Town of Pine Plains Sidewalk and Trails Survey Results

7. Would you support any of the following sources of additional funding for pedestrian improvements if needed? (Check all that apply)

Answer Options	Response Percent	Response Count
Slight increase in property tax	32.4%	33
Transportation bonds (borrowing)	20.6%	21
Pursue federal, State, and regional grants	73.5%	75
50/50 sharing of costs between Town & property owners	18.6%	19
Point of sale (require repair before selling property)	10.8%	11
Establish a community fund to accept donations	66.7%	68
Do not support additional funding	12.7%	13
Other (please specify)		9
answered question		102
skipped question		10

8. What locations/areas should be more accessible by walking? (Check all that apply)

Answer Options	Response Percent	Response Count
Post Office	36.3%	29
West Church St (Route 199)	36.3%	29
Pine Plains Free Library/Community Center	42.5%	34
East Church St (Route 199)	23.8%	19
Seymour Smith Elementary School	32.5%	26
North Main St (CR 83A)/area north of High School	47.5%	38
Stissing Mountain Middle/High School	38.8%	31
South Main St (Route 82)	25.0%	20
Stissing Lake Park/Recreational Area	62.5%	50
Stissing Ave/Lake Rd towards Stissing Lake Park	66.3%	53
Stissing Mountain/Thompson Pond	57.5%	46
Birch Dr, Fairview Ave, or Poplar Ave	35.0%	28
Evergreen Cemetery	47.5%	38
Other (please specify)		8
answered question		80
skipped question		32

Town of Pine Plains Sidewalk and Trails Survey Results

9. Where is the most difficult location for walking in your area? (Be as specific as possible.) Why?

Answer Options	Response Count
	63
<i>answered question</i>	63
<i>skipped question</i>	49

10. Where is the most difficult location for bicycling in your area? (Be as specific as possible.) Why?

Answer Options	Response Count
	41
<i>answered question</i>	41
<i>skipped question</i>	71

11. Do you have access to an automobile for most trips?

Answer Options	Response Percent	Response Count
Yes	95.1%	98
No	4.9%	5
<i>answered question</i>		103
<i>skipped question</i>		9

12. Do you have any additional comments about walking or biking in the Pine Plains Town Center?

Answer Options	Response Count
	44
<i>answered question</i>	44
<i>skipped question</i>	68

13. If you would like to receive future notifications about these projects, please print your email address below:

Answer Options	Response Count
	25
<i>answered question</i>	25
<i>skipped question</i>	87

Town of Pine Plains Sidewalk and Trails Survey Results

14. Do you wish to complete the special Pine Plains Trails & Bikeways Survey?		
Answer Options	Response Percent	Response Count
Yes	91.5%	97
No	8.5%	9
<i>answered question</i>		106
<i>skipped question</i>		6

15. Are there roads in Pine Plains that you use that could be made more bicycle-friendly?		
Answer Options	Response Percent	Response Count
Yes	73.4%	58
No	26.6%	21
If yes, please identify:		48
<i>answered question</i>		79
<i>skipped question</i>		33

16. Where have you hiked in the past year?		
Answer Options	Response Percent	Response Count
Stissing Mountain Trail from Lake Road	82.2%	60
Thompson's Pond Trail	87.7%	64
Jay Trail Stissing Lake	16.4%	12
Stissing Mountain Trail from State Land on Hicks Hill	19.2%	14
Please tell us about other areas where you hike in Pine Plains:		17
<i>answered question</i>		73
<i>skipped question</i>		39

17. What would increase your use of trails in Pine Plains?		
Answer Options	Response Percent	Response Count
Better maps	44.3%	35
Better signs	60.8%	48
Better trail marking	59.5%	47
Organized hikes for children and families	40.5%	32
Better construction/maintenance of trails	49.4%	39
Convenient parking and linkages to other	50.6%	40
Other (please specify)		14
<i>answered question</i>		79
<i>skipped question</i>		33

18. Do you think Pine Plains would benefit from improving and expanding our existing Town trails?		
Answer Options	Response Percent	Response Count
Yes	88.7%	86
No	11.3%	11
<i>answered question</i>		97
<i>skipped question</i>		15